# Administrative County of Middlesex.

# ANNUAL REPORT

OF THE

# COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

# YEAR 1930.

LONDON:
HARRISON AND SONS, LTD., ST. MARTIN'S LANE, W.C.2,
*Printers in Ordinary to His Majesty.*

1932.

(C 4741)T A

*TO THE CHAIRMAN, ALDERMEN AND MEMBERS OF THE MIDDLESEX COUNTY COUNCIL.*

Sir, My Lord, Ladies and Gentlemen,

I have the honour to present my Annual Report for the year 1930. This is the second of the "survey" reports which the Ministry of Health requires to be drawn up every five years. Accordingly, it will be found to be materially increased in size as compared with its predecessors of the past four years. From the point of view of public health the year 1930 will always remain memorable as the one in which the provisions of the Local Government Act, 1929, came into force, with the consequent transference to the County Council of the powers and duties of the late Guardians in respect of the provision of medical assistance for the necessitous. Whilst the Local Government Act contains many provisions affecting public health and of a far-reaching character, the vesting in the County Council of the responsibility for the control and management of the many large institutions and hospitals, initiated and developed by the late Boards of Guardians. stands out as the most prominent feature of the Act. During recent years public opinion has undergone a marked change with regard to the character of the provision for the treatment of the sick which it is considered should properly be made by the authorities responsible for the administration of the Poor Law. This change has been much more evident in some areas than in others, and in consequence different Boards of Guardians have interpreted their duties in different ways. This is reflected in the County of Middlesex, where it was found that the standard of service provided at the several transferred hospitals was far from uniform. During the nine months in which the County Council has been responsible for the management of the hospitals, &c., endeavour has been made gradually to create an equally efficient hospital service throughout the whole County.

It is a matter for congratulation that so far as can be ascertained the change over in management of the hospitals and institutions has not been attended by any disorganisation but rather the reverse, and the work in these establishments has continued without hitch or interruption. In this connection I would venture to refer to the wholehearted manner in which the members of the committees of management of the various hospitals and institutions have accepted their very onerous responsibilities. The enormous demands on their time and energies, which the new duties have made upon them, have been met with sympathy and cheerfulness, and it is this spirit of helpfulness and enthusiasm which has contributed in no small degree to the success which has attended the County Council's exercise of its new powers.

The five years dealt with in this report have been marked by a very rapid development in many parts of Middlesex. This has been commented upon by local Medical Officers of Health, but, hitherto, no trustworthy statistics have been available. In April, 1931, the decennial census was taken, and the results of this enumeration of the population have been utilised in estimating the population in 1930. From the census returns it is clear that the County of Middlesex is the most rapidly growing area of its size in the Kingdom. Between 1921 and 1931 the population has increased by no less than 30·8 per cent., and from local knowledge it is evident that the greatest growth has taken place during the later years of this decade, and is continuing at the present time.

These facts in themselves indicate the difficult character of the problem of providing efficient social services which the County Council of Middlesex has to face. Even if no improvement or advance in any service were required, to maintain the proportion of accommodation in institutions, hospitals, sanatoria, schools, &c., to population which was available ten years ago, would require an increase of nearly 40 per cent. on the provision available at that time. When to this factor must be added the evergrowing tendency of the public to make use of services provided by local authorities, it is evident that large expenditure (both in respect of capital and maintenance) in this County is inevitable.

As a whole the vital statistics for the year 1930 are satisfactory, and indicate the continued healthiness of the population in Middlesex. The general death-rate, the infantile mortality-rate and the death-rate from tuberculosis are all the lowest recorded, whilst the birth-rate, although slightly lower than that for 1929, in view of the correction of population resulting from the census, may be regarded as stationary. There is one disquieting feature revealed by the year's statistics, however, and this is the alarming increase in the rate of maternal mortality, which this year has reached the figure of 4·15 per 1,000 births. It is especially to be regretted that more than half the deaths are recorded as due to puerperal sepsis, and it is to be hoped that this experience may not be repeated in future years.

I am indebted to the County Solicitor for an interesting memorandum on the County Council's Bill for conferring upon the Middlesex County Council powers as a main sewerage authority in so far as the western area of the County is concerned. No apology is needed for setting this out at some length, for the problem of providing for the efficient disposal of sewage at a minimum number of

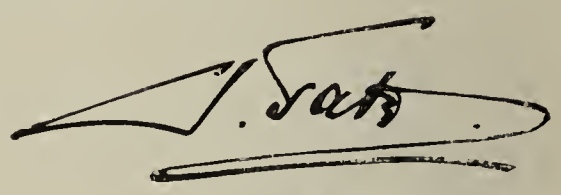
sites is a matter not only affecting the soeial ameuities of the districts, but of the greatest import to publie health in an area whieh is rapidly being urbanised as is the case in Middlesex.

On page 76 will be found a detailed statement of the provision in the County available for the isolation of eases of infeetious diseases. The Local Government Aet, 1929, requires the County Council to survey this and formulate, in consultation with the eouncils of distriets, "a scheme for the provision of adequate hospital aecommodation for the treatment of infectious diseases within the County." At the elose of the year this matter was engaging the attention of the Counеil.

In eonelusion I would offer my apologies for the very belated appearanee of this report, due solely to the great increase of work whieh has devolved upon the Publie Health Department and upon me personally, as a result of the Local Government Act, 1929, and at the same time I desire to plaee on record my appreeiation of the loyal assistanee I have reeeived from all members of my staff, mentioning espeeially my deputy, Dr. Maeaulay, and my assistant, Dr. Perkins, who together have been responsible for mueh of the matter appearing in this Report.

I have the honour to be,

Your obedient Servant,



*County Medical Officer.*

Public Health Department,
10, Great George Street,
Westminster, S.W.1.

*November*, 1931.

## Staff.

### WHOLE-TIME OFFICERS.

*County Medical Officer of Health and School Medical Officer :*

J. Tate, M.R.C.S., L.R.C.P., D.P.H.

*Deputy County Medical Officer of Health and Deputy School Medical Officer :*

H. M. C. Macaulay, M.D., B.S., B.Sc., D.P.H.

*Assistant County Medical Officer of Health :*

A. C. T. Perkins, M.D., B.S., D.P.H.*

*Tuberculosis Medical Officers :*

F. R. B. Atkinson, M.D., C.M.
O. Bruce, M.R.C.S., L.R.C.P.
S. Trevor Davies, M.R.C.S., L.R.C.P.
J. R. B. Dobson, M.B., B.S., B.Sc.
H. Evans, M.D., Ch.B., D.P.H.
W. S. Forbes, M.B., Ch.B., D.P.H.

*Assistant Medical Officers :*

(*Maternity and Child Welfare and School Medical Inspection and Treatment.*)

Mrs. A. M. Burn, M.B., Ch.B., D.P.H.
Miss J. R. Campbell, M.B., Ch.B., D.P.H.†
R. N. Daniel, M.R.C.S., L.R.C.P.
Miss K. Glyn-Jones, M.R.C.S., L.R.C.P.‡
W. R. H. Heddy, M.R.C.S., L.R.C.P., D.P.H., Barrister-at-Law.
H. W. Moir, M.B., Ch.B., D.P.H.
Lieut.-Col. H. L. W. Norrington, D.S.O., M.R.C.S., L.R.C.P.
Miss M. K. Ruddy, M.D., B.S., B.Sc.
Mrs. R. H. Shelley, M.B., B.S.
Miss G. Wilson, M.A., M.B., Ch.B., D.P.H.

*Veterinary Inspector :*

(*Milk and Dairies (Consolidation) Act*, 1915, *and Milk and Dairies Order*, 1926.)

Sidney Villar, F.R.C.V.S.

*Senior Dental Officer :*

(*Maternity and Child Welfare, County Sanatoria, School Dental Treatment.*)

S. J. Smith, L.D.S.

*Assistant Dental Officers :*

(*Maternity and Child Welfare and School Dental Treatment.*)

J. V. Bingay, L.D.S.
Miss I. M. Broom, L.D.S.
R. E. Cook, L.D.S.
R. V. Kingham, L.D.S.
Mrs. C. S. Leiper, L.D.S.

*Inspector of Midwives and Superintendent of Health Visitors :*

Miss A. A. I. Pollard.

*Inspector of Midwives :*

Miss C. A. M. Coleman.

| | |
|---|---|
| Tuberculosis Dispensary Nurses | 13 |
| Health Visitors and School Nurses | 24 |
| Dental Nurses | 6 |
| Midwives | 2 |

* Commenced duty, 22nd January, 1930.

† Commenced duty, 10th September, 1930.

‡ Appointed whole-time Assistant Medical Officer, 1st January, 1930.

## PART-TIME OFFICERS.

*Consulting Obstetric Physicians :*

(1) *Central Ante-natal Clinic :*

J. S. Fairbairn, M.A., F.R.C.S. (Eng.), F.R.C.P.

(2) *Puerperal Fever, &c., Regulations, 1926 :*

J. M. Wyatt, M.B., B.S., F.R.C.S. (Eng.).

*Ophthalmic Surgeons :*

(*Maternity and Child Welfare and School Medical Services.*)

Mrs. S. G. Banham, M.B., B.Sc.

F. A. C. Tyrrell, B.A., M.B., B.Ch., F.R.C.S. (Eng.).

*Assistant Medical Officers :*

(*Maternity and Child Welfare.*)

L. W. Hignett, M.B., C.M., D.P.H.

F. A. Spreat, F.R.C.S. (Eng.), D.P.H.

## HOSPITALS, INSTITUTIONS AND SANATORIA.

### North Middlesex County Hospital.

*Medical Superintendent :*

Spencer Mort, M.D., Ch.M., F.R.C.S.(Edin.), F.R.S.(Edin.).

*Deputy Medical Superintendent :*

A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.

*Surgeon :*

R. L. Galloway, M.B., Ch.B., F.R.C.S.(Edin.).

*Assistant Medical Officers :*

K. A. Hudson, M.B., Ch.M.

R. V. Horniman, M.B., Ch.M.

H. O. Blauvelt, M.D., C.M., F.R.C.S.(Eng.).

C. R. McCash, M.B., Ch.B., F.R.C.S.(Edin.).

H. K. Houston, M.B., B.Ch.

P. J. Nagle, M.B., B.Ch., B.A.O.

D. Simpson, B.Sc., M.B., B.Ch.

Miss E. A. Pennycuick, M.B., Ch.B.

*Matron :*

Miss A. Dowbiggin, M.B.E., R.R.C.

### West Middlesex County Hospital.

*Medical Superintendent :*

J. B. Cook, M.D., Ch.B., D.P.H.

*Assistant Medical Officers :*

Miss M. W. Warren, M.R.C.S., L.R.C.P.

A. W. Badenoch, M.A., M.D.

M. Deane, M.D.

J. A. McLean, M.D.

*Matron :*

Miss E. Huggins.

### Central Middlesex County Hospital.

*Medical Superintendent and Master :*

W. E. Turner, M.R.C.S., L.R.C.P.

*Assistant Medical Officers :*

T. G. I. James, M.B., B.Ch., B.Sc., F.R.C.S. (Eng. and Edin.).

N. M. Matheson, M.B., Ch.B., F.R.C.S. (Eng.), M.R.C.P.

A. D. Abdullah, M.B., Ch.M., M.R.C.P.

*Matron :*

Miss B. Gebhard.

REDHILL COUNTY HOSPITAL.

*Medical Superintendent :*
J. N. Deacon, M.B., B.S.

*Deputy Medical Superintendent :*
W. A. Steel, M.D., M.R.C.P.

*Assistant Medical Officer :*
Locum tenens.

*Surgeon (part-time) :*
R. Trevor Jones, F.R.C.S. (Eng.).

*Matron :*
Miss L. F. Dykes.

HILLINGDON COUNTY HOSPITAL.

*Medical Superintendent :*
R. Rutherford, F.R.C.S. (Eng.).

REDHILL INSTITUTION.

*Medical Officer (part-time) :*
A. Findlater, B.A., M.D., B.Ch.

STAINES INSTITUTION.

*Medical Officer (part-time) :*
L. R. Pickett, M.R.C.S., L.R.C.P.

EDGBURY CONVALESCENT HOME, WOBURN SANDS.

*Medical Officer (part-time) :*
J. N. Alexander, M.R.C.S., L.R.C.P.

*Matron :*
Miss M. A. Bishop.

EDMONTON HOUSE, ENFIELD HOUSE, CHASE FARM SCHOOLS, WARKWORTH HOUSE, HILLINGDON INSTITUTION :

The medical care of patients and inmates in these institutions is provided by the medical staffs of the hospitals set out above.

COUNTY SANATORIUM, HAREFIELD.

*Medical Superintendent :*
J. R. McGregor, M.B., Ch.B., D.P.H.

*Senior Assistant Medical Officer :*
F. A. H. Simmonds, B.A., M.B., B.Ch.

*Assistant Medical Officers :*

K. R. Stokes, M.R.C.S., L.R.C.P.

D. G. M. Edwards, M.B., B.S., D.P.H.

*Matron :*
Miss C. Woodward.

COUNTY SANATORIUM, CLARE HALL, SOUTH MIMMS.

*Medical Superintendent :*
A. C. Tabois, M.D.

*Senior Assistant Medical Officer :*
R. V. Cookes, L.M.S.S.A.

*Assistant Medical Officer :*
J. T. N. Roe, M.B., Ch.B.

*Matron :*
Miss M. Brown.

## PUBLIC VACCINATORS AND DISTRICT MEDICAL OFFICERS (PUBLIC ASSISTANCE).

| Name. | Qualifications. | District. |
|---|---|---|
| *Northern Area—* | | |
| Cattle, Fanny | B.Sc., M.R.C.S., L.R.C.P. | Tottenham (West Green). |
| Duff, J. M. | M.B., Ch.B. | Edmonton (North). |
| Hill, A. C. | M.A., M.B., Ch.B. | Tottenham (High Cross). |
| Hill, J. E. | M.B., B.Ch. | Enfield Highway and Ponders End. |
| McLaren, T. | M.B., B.Ch. | Tottenham (Lower). |
| Shaw, J. | M.A., M.B., Ch.B. | Edmonton (South). |
| Toop, B. M. | M.R.C.S., L.R.C.P. | Enfield (Cooper's Lane). Enfield Town. |
| *North-Eastern Area—* | | |
| Bensted, L. (D.M.O. only) | M.R.C.S., L.R.C.P. | Friern Barnet (South). |
| Buckler, E. F. | M.B., Ch.B., M.R.C.S., L.R.C.P. | Highgate. |
| Evans, G. P. | M.R.C.S., L.R.C.P. | Friern Barnet (North). |
| Evans, G. P. (P.V. only) | M.R.C.S., L.R.C.P. | Friern Barnet (South). |
| Gleed, S. R. | M.R.C.S., L.R.C.P. | Finchley (North). |
| Hayes, W. E. | M.B., B.Ch., M.R.C.S., L.R.C.P. | South Mimms. |
| Hicks, T. W. | M.D., M.R.C.S., L.R.C.P. | Finchley (South). |
| James, F. | M.R.C.S., L.R.C.P. | Wood Green. |
| Kerr, C. H. | M.D., B.Ch. | Winchmore Hill. |
| Pearman, T. E. A. | M.R.C.S., L.R.C.P. | Hornsey (Harringay). |
| Woodcock, H. C. | M.R.C.S., L.R.C.P. | Southgate. |
| *Central Area—* | | |
| Andrew, F. W. | M.R.C.S., L.R.C.P. | Hendon Central and Hendon West (pt.). |
| Baron, R. W. | M.B., Ch.B. | Child's Hill. |
| Butler, C. J. | M.R.C.S., L.R.C.P. | Wealdstone. |
| Dyson, H. E. | M.D., B.S., M.R.C.S., L.R.C.P. | Wembley. |
| Findlater, A. | B.A., M.D., B.Ch. | Edgware, Little Stanmore and Lower Hale. |
| Levick, G. D. B. | M.R.C.S., L.R.C.P. | Pinner. |
| Little, Margaret | M.R.C.S., L.R.C.P. | Burnt Oak and Watling Estate. |
| Morley, A. H. | M.B., B.S., M.R.C.S., L.R.C.P. | Mill Hill (pt.). |
| Myers, L. | M.B., B.S. | Golders Green and Hampstead Garden Suburb. |
| Pennefather, C. M. | M.D., B.S., M.R.C.S., L.R.C.P. | Harrow-on-the-Hill. |
| Romer, R. L. | M.R.C.S., L.R.C.P. | Great Stanmore and Harrow Weald. |
| Routledge, Mary | M.B., Ch.B. | Kingsbury. |
| *Willesden Area—* | | |
| Auty, C. H. (D.M.O. only) | M.R.C.S., L.R.C.P. | Willesden (No. 2). |
| Scott, C. F. T. (P.V. only) | M.B., Ch.B. | Harlesden. |
| Smith, J. A. (D.M.O. only) | M.D., M.R.C.S. | Willesden (No. 1). |
| Smith, P. (P.V. only) | M.D., B.S., M.R.C.S., L.R.C.P., D.P.H. | Kilburn. |
| Stocker, W. W. (D.M.O. only) | M.R.C.S., L.R.C.P. | Willesden (No. 3). |
| *Western Area—* | | |
| Caverhill, A. M. | M.D., Ch.B., D.T.M. | Hanwell and Ealing (pt.), Greenford and Perivale. |
| Cockle, W. P. | B.A., M.D., B.Ch. | Ealing (pt.) and West Twyford. |
| Dixson, C. F. L. | M.D., M.R.C.S. | Acton. |

| Name. | Qualifications. | District. |
|---|---|---|
| *Western Area*—continued. | | |
| Dobson, W. T. | M.R.C.S., L.R.C.P. | Uxbridge and Ickenham. |
| Hignett, L. W. | M.B., C.M., M.R.C.S., L.R.C.P., D.P.H. | Ruislip. |
| How, F. R. | M.R.C.S., L.R.C.P. | Harefield. |
| Mulligan, Olive | M.B., B.Ch. | Northolt. |
| McKenna, J. | M.B., B.Ch. | Norwood. |
| Norman, Jessie | M.R.C.S., L.R.C.P. | Yiewsley and West Drayton. |
| Parrott, J. N. | M.R.C.S., L.R.C.P. | Hayes. |
| Vickers, H. | M.R.C.S., L.R.C.P. | Cowley and Hillingdon. |
| *Southern Area*— | | |
| Cassells, W. L. | B.Sc., M.B., Ch.B. | Twickenham. |
| Christian, L. B. (P.V. only) | M.B., C.M. | Heston, Isleworth (pt.). |
| Coffey, P. | L.R.C.P., L.R.C.S. | Cranford, Harlington and Harmondsworth (Sipson and Heathrow). |
| Ducat, A. D. | M.B., M.R.C.S., L.R.C.P. | Chiswick. |
| Gordon, S. E. | L.R.C.P.I., L.R.C.S.I. | Sunbury. |
| Gunther, H. A. | M.B., M.R.C.S., L.R.C.P. | Hampton Wick. |
| Heiser, A. L. | M.R.C.S., L.R.C.P. | Harmondsworth (Longford) and Stanwell. |
| Kennedy, J. | M.B., B.Ch., F.R.C.S.I. | Ashford. |
| Mann, A. C. | M.B., B.Ch. | Laleham and Staines. |
| Montgomery, V. C. (P.V. only) | M.B., B.Ch., B.A.O. | Bedfont, Feltham and Hanworth. |
| Morgan, V. V. | M.R.C.S., L.R.C.P. | Hampton Hill (S. James). |
| Neil, R. C. | M.R.C.S., L.R.C.P. | Brentford and Brentford End. |
| Owen, A. D. | M.R.C.S., L.R.C.P.,L.S.A. | Hampton. |
| Parr, A. C. E. (D.M.O. only) | B.A., M.R.C.S., L.S.A. | Bedfont, Feltham and Hanworth. |
| Sadler, C. G. A. | M.R.C.S., L.R.C.P. | Teddington. |
| Serjeant, R. (D.M.O. only) | M.R.C.S., L.R.C.P. | Heston, Isleworth (pt.). |
| Smith, R. C. | M.B., Ch.B. | Isleworth (pt.). |
| Urquhart, A. | M.A., M.B., Ch.B., D.P.H. | Shepperton and Littleton. |

## SUMMARY OF IMPORTANT STATISTICS RELATING TO THE ADMINISTRATIVE COUNTY OF MIDDLESEX.

| | |
|---|---|
| Area (including inland water) | 148,692 acres. |
| Population 1921 (census) | 1,253,002 |
| ,, 1930 (estimated) | 1,564,100 |
| Number of inhabited houses, 1921 (census) | 236,266 |
| ,, ,, ,, end of 1930 (according to rate-books) | 361,632 |
| Number of families or separate occupiers, 1921 (census) | 298,437 |
| Rateable value, 1930 | £13,256,798 10*s.* |
| Product of a penny rate, 1930 | £54,797 |

| Live births— | Total. | Male. | Female. |
|---|---|---|---|
| Legitimate | 23,875 | 12,205 | 11,670 |
| Illegitimate | 965 | 495 | 470 |

| | |
|---|---|
| Birth-rate | 15·9 |
| Stillbirths | 894 |
| ,, Rate per 1,000 total births | 36·0 |
| Deaths | 14,654 |
| Death-rate | 9·4 |
| Percentage of total deaths occurring in public institutions | 42·9 |

Number of women dying in, or in consequence of, childbirth :—

| | |
|---|---|
| From sepsis | 55 |
| From other causes | 48 |
| Maternal mortality rate per 1,000 live births | 4·15 |

Infantile mortality rate :—

| | |
|---|---|
| Legitimate | 45 |
| Illegitimate | 128 |
| Total | 48 |

| | |
|---|---|
| Deaths from measles (all ages) | 135 |
| ,, whooping cough (all ages) | 44 |
| ,, diarrhoea (under 2 years of age) | 131 |

# Administrative County of Middlesex.

## ANNUAL REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1930.

### Natural and Social Conditions.

Area.—The County of Middlesex has an area, inclusive of inland water, of 148,692 acres. It is bounded on the north by the County of Hertford, on the east by the County of Essex from which it is separated by the River Lea, on the south-east by the County of London, on the south by the River Thames, which separates it from the County of Surrey, and on the west by the County of Buckingham.

There are no county boroughs in Middlesex, so that the administrative county coincides with the geographical county. For purposes of local government Middlesex is divided into 32 separate sanitary areas, as follow :—

| | | | |
|---|---|---|---|
| 4 municipal boroughs | .. .. .. .. .. | with an area of | 16,736 acres. |
| 26 urban districts | .. .. .. .. .. .. | ,, | 114,533 ,, |
| 2 rural districts | .. .. .. .. .. .. | ,, | 17,423 ,, |

With a view to the promotion of more efficient local administration, a reduction in the number of separate sanitary areas has been effected during recent years by a process of amalgamation or absorption of districts. When the last " survey " report was written in 1925, the number of separate sanitary districts in the county was 37. During the intervening years five county districts have ceased to exist as separate units of local government. The principle of reducing the number of autonomous local government areas finds support in the Local Government Act of 1929 ; and provided that the resultant areas are not unwieldy, either in respect of population or acreage, there is no doubt that the creation of relatively large local government areas is likely to lead to increased efficiency and economy in sanitary administration. Particulars of four county districts, which since 1925 have ceased to act as separate authorities, have been given in previous reports and only one remains to be mentioned, viz., the Rural District of Staines, which on 1st April, 1930, was partitioned as follows : the parishes of East Bedfont and Hanworth were transferred to Feltham Urban District, the parishes of Cranford and Harlington to Hayes (renamed Hayes and Harlington) Urban District, the parish of Stanwell and parts of Ashford, Laleham and Littleton to Staines Urban District, the parish of Shepperton and the remainder of Ashford, Laleham and Littleton to Sunbury Urban District, and the parish of Harmondsworth to the Urban District of Yiewsley and West Drayton.

Population.—In April, 1931, the decennial census of the population was taken, and although in this report, which deals with the year 1930 and, to a lesser extent, with the four preceding years, it is not proposed to enter upon any detailed consideration of the census figures, some reference must be made here.

The actual enumeration of the population takes place only once every ten years ; during each of the intervening years the population is estimated by the Registrar-General and his calculation is based upon the principle, which in the aggregate is substantially correct, that the *rate* of increase (or decrease) of a population is fairly constant within a limit of ten years. The estimated populations for the years 1922 to 1929 were calculated from the census figure of 1921, to which was added each year a number estimated to represent the increase of population, based upon the actual growth which occurred between the two previous census years 1911 and 1921. The census taken in 1931, however, showed very clearly that, so far as Middlesex is concerned, the population has been the subject of influences which are incalculable. In the year 1921 the population of the administrative county was 1,253,002 : in 1931 the census revealed a population of 1,638,521. In ten years, therefore, the population had increased by 385,519, or rather more than 30 per cent., a proportional growth greater than that recorded for any other administrative or geographical county in England and Wales.

The results revealed by the census of 1931 will naturally call for detailed comment when my annual report for that year is written. Mention is made of them here for two reasons. In the first place, the Registrar-General in estimating the population for 1930 made his calculation for that year upon the census figures for 1931 and not upon those of 1921. Secondly, the result thus attained demonstrated an increase of population out of all proportion to that estimated for the previous intercensal years, and the unexpectedly high figure of population now revealed colours the whole of the statistical portion of this report. The whole record of health administration in the county, in fact, needs to be viewed in the light of the new knowledge which has been obtained regarding the phenomenal growth of population of Middlesex.

The population of the county in mid-1930, as estimated by the Registrar-General upon the 1931 census was 1,564,100, an increase of 311,098 above the actual population in 1921 and of 101,450 above the estimated population for 1929.

In 1925, the year for which the last survey report was written, the estimated population was 1,306,430—a figure which probably was substantially correct. Since that year the population has grown by 257,670, over a quarter of a million, or an increase of approximately 20 per cent. This may be expressed in another way by stating that for every five residents in the County of Middlesex in 1925 there were six in 1930. It is fairly evident that by reason of greatly accelerated immigration into the County during the last few years—a factor the accurate estimation of which is not possible during intercensal periods—the estimates of population for the later years of the decennium 1921–31 were too low, probably progressively too low. Comparisons of rates based upon the population (birth-rate, death-rate, disease incidence-rates, &c., for the year 1930) with those of the previous year, therefore, are apt to be fallacious: and conclusions drawn from such comparisons should be made with reserve. The infantile mortality rate, maternal mortality rate and the case mortality rate of diseases are not calculated with reference to the total population, so that the above considerations do not arise in connection with these rates.

Excluding the personnel of the Army and Royal Air Force in the County, the estimated civilian population in 1930 was 1,560,120.

Information regarding the enumerated population at the census in 1911 and 1921 and the estimated population in 1930 for each of the sanitary districts in the County is contained in the following table :—

POPULATION.

| Sanitary District. | Census 1911. | Census 1921. | Estimated by Registrar-General. 1930. | |
|---|---|---|---|---|
| | | | Total. | Civilian. |
| *Urban.* | | | | |
| Acton (*Borough*) .. .. | 57,497 | 61,299 | 68,230 | 68,230 |
| *Brentford .. .. .. | 16,571 | 17,032 | 61,130 | 61,130 |
| *Chiswick .. .. .. | 38,697 | 40,938 | | |
| †Ealing (*Borough*) .. .. | 61,222 [81,415] | 67,755 [89,697] | 111,800 | 111,800 |
| Edmonton .. .. .. | 64,797 | 66,807 | 76,470 | 76,470 |
| Enfield .. .. .. .. | 56,338 | 60,738 | 66,840 | 66,840 |
| Feltham .. .. .. .. | 5,135 | 6,326 | 15,130‡ (*13,670*) | 14,790‡ (*13,330*) |
| Finchley .. .. .. .. | 39,419 | 46,716 | 57,030 | 57,030 |
| Friern Barnet .. .. .. | 14,924 | 17,375 | 22,440 | 22,440 |
| Hampton .. .. .. | 9,220 | 10,675 | 12,610 | 12,610 |
| Hampton Wick .. .. .. | 2,417 | 3,265 | 2,970 | 2,970 |
| Harrow .. .. .. .. | 17,074 | 19,469 | 25,890 | 25,890 |
| Hayes and Harlington .. .. | 4,261 | 6,303 | 21,320‡ (*20,260*) | 21,320‡ (*20,260*) |
| Hendon .. .. .. .. | 38,806 | 56,013 | 98,540 | 98,230 |
| Heston and Isleworth .. .. | 43,313 | 46,664 | 70,420 | 69,610 |
| Hornsey (*Borough*) .. .. | 84,592 | 87,659 | 92,520 | 92,520 |
| Kingsbury .. .. .. | 821 | 1,856 | 13,060 | 13,060 |
| Ruislip-Northwood .. .. | 6,217 | 9,112 | 15,080 | 14,420 |
| Southall-Norwood .. .. | 26,323 | 30,287 | 37,560 | 37,560 |
| Southgate .. .. .. | 33,612 | 39,122 | 52,850 | 52,850 |
| Staines .. .. .. .. | 6,755 | 7,326 | 20,160‡ (*17,130*) | 20,160‡ (*17,130*) |
| Sunbury .. .. .. .. | 4,607 | 5,350 | 13,150‡ (*11,660*) | 13,150‡ (*11,660*) |
| Teddington .. .. .. | 17,847 | 21,213 | 22,950 | 22,950 |
| Tottenham .. .. .. | 137,418 | 146,711 | 157,400 | 157,400 |
| Twickenham (*Borough*) .. .. | 29,367 | 34,790 | 38,290 | 38,290 |
| Uxbridge .. .. .. .. | 10,374 | 12,919 | 30,110 | 28,390 |
| Wealdstone .. .. .. | 11,923 | 13,433 | 29,330 | 24,330 |

* The Urban Districts of Brentford and Chiswick were amalgamated on 1st April, 1927.

† The figures in square brackets represent the combined census populations of the Borough of Ealing and the Urban Districts of Greenford and Hanwell in 1911 and 1921 respectively. The two latter districts ceased to exist as separate entities on 1st October, 1926, when the Borough of Ealing became enlarged by their addition.

‡ Consequent upon the abolition of the Staines Rural District on 1st April, 1930, and the distribution of the area amongst surrounding districts, it has been necessary, for the purpose of calculating the birth-rates and death-rates of the districts concerned, to make adjustment of the several populations estimated at the mid-year. The necessary figures have been furnished by the Registrar-General, and are given in italics.

| Sanitary District. | Census 1911. | Census 1921. | Estimated by Registrar-General, 1930. | |
|---|---|---|---|---|
| | | | Total. | Civilian. |
| *Urban*—continued. | | | | |
| Wembley .. .. .. | 10,696 | 16,187 | 42,790 | 42,790 |
| Willesden .. .. .. | 154,214 | 165,674 | 180,000 | 180,000 |
| Wood Green .. .. .. | 49,369 | 50,707 | 54,020 | 54,020 |
| Yiewsley and West Drayton .. | 4,315 | 4,843 | 12,370* / *11,640* | 12,230* / *11,500* |
| *Rural.* | | | | |
| Hendon .. .. .. .. | 14,160 | 17,656 | 41,540 | 41,540 |
| South Mimms .. .. .. | 2,805 | 3,134 | 5,110 | 5,100 |
| *Staines .. .. .. .. | 21,926 | 25,063 | (*7,770*)* | (*7,770*)* |
| †Uxbridge .. .. .. .. | 9,240 | 10,643 | — | — |
| The County .. .. | 1,126,465 | 1,253,002 | 1,564,100 | 1,560,120 |

* *See* note ‡ on page 2.

† The Rural District of Uxbridge was abolished on 31st March, 1929, when part of the district was transferred to Uxbridge Urban District and the remainder to the Urban District of Yiewsley and West Drayton.

Social Conditions.—Urbanisation is proceeding in Middlesex at a pace which is probably unequalled in any other county of Great Britain. Starting from that portion of the county which adjoins the County of London, the process has spread centrifugally and has transformed, and continues rapidly to transform, the peripheral parts of Middlesex. In the central districts development of an intensely urban character is almost complete. Further afield, however, in the newly developing districts, although the inroads of the builder have seriously encroached upon the natural charm of the country-side, wise schemes of town-planning have prevented unrestricted building and have resulted in the appearance of residential localities of semi-rural character interspersed with open spaces. The inhabitants of these newly-appearing residential areas consist largely of persons who travel daily to London to earn their living: the development of electric railways and road transport services during the last few years has progressively expanded the circle in which a person may reside and still be within easy reach of his daily work in London.

In addition, however, to providing a dormitory for London workers, Middlesex has industries of its own. With the advance of building, agriculture and dairy-farming have greatly diminished in importance as industries, but (as will be seen later in this report) there is still an appreciable amount of milk production within the County, whilst in the south-western part of Middlesex, in the Thames Valley, market-gardening on a considerable scale is carried on and provides employment for numbers of men and women.

A certain amount of manufacturing activity has gone on for a number of years in Middlesex, more especially in the northern districts in the County and in Willesden; but more recently, and particularly since the War, there has been a very notable increase in factory development. Along the lines of some of the new and very excellent arterial roads modern factories have been, and still are being, erected. The commencement of the Great West Road, for instance, is proving to be a very popular locality for the establishment of factories, and these, constructed in accordance with modern architectural design, are for the most part of by no means unpleasing appearance. Along the line of the Great Western Railway a number of factories likewise have grown up; and on the site of the British Empire Exhibition at Wembley many of the excellently constructed permanent buildings, erected for purposes in connection with the Exhibition, have now been adapted to industrial uses. Industrial development on any considerable scale in Middlesex being of such recent origin, it is found that, for the most part, the trades carried on in the County are representative of the newer branches of industry. Among these may be mentioned the manufacture of aeroplanes, electrical instruments, photographic materials, gramophones and records, silk and artificial silk stockings, the assembling and repairing of motor cars and the production of cinematograph films.

Births and Birth-Rates.—The corrected number of births belonging to the County and occurring during 1930 was 24,840 (12,700 males and 12,140 females). This number is equivalent to a birth-rate of 15·9 per 1,000 of the population. The number of illegitimate births registered was 965 (495 males and 470 females), representing an illegitimate birth-rate of 0·62 per 1,000 of the population. The ratio of legitimate to illegitimate births is 24·7 to one.

The following table gives the birth statistics for the last five years for Middlesex, London, the Great Towns, and England and Wales :—

| Year. | The County. | | London. | Great Towns. | England and Wales. |
|---|---|---|---|---|---|
| | Births. | Rate per 1,000 living. | Rate per 1,000 living. | Rate per 1,000 living. | Rate per 1,000 living. |
| 1926 .. .. .. .. .. .. | 21,703 | 16·3 | 17·1 | 18·2 | 17·8 |
| 1927 .. .. .. .. .. .. | 21,123 | 15·6 | 16·1 | 17·1 | 16·7 |
| 1928 .. .. .. .. .. .. | 22,665 | 16·0 | 16·2 | 16·9 | 16·7 |
| 1929 .. .. .. .. .. .. | 23,331 | 16·0 | 15·7 | 16·6 | 16·3 |
| 1930 .. .. .. .. .. .. | 24,840 | 15·9 | 15·7 | 16·6 | 16·3 |

Comparisons of the rates with those of the immediately preceding years are somewhat fallacious in view of the discrepancy, already referred to, in the estimations of population in the last few years. It is certain that the true population of the County for several years past has been appreciably greater than that calculated by the Registrar-General. In consequence, the true birth-rates for the years 1928 and 1929 (to take only two years) doubtless were lower than those indicated in the above table. The figure for 1930, therefore, which is a substantially correct one, probably indicates an approximately stationary or possibly even slightly rising birth-rate.

Particulars of the number of births and birth-rates in each sanitary district of the County are set out in the table which follows, the districts being arranged in descending order of magnitude of the birth-rate :—

Births and Birth-Rates in each District, 1930.

| District. | Net number. | Rate per 1,000 living. | District. | Net number. | Rate per 1,000 living. |
|---|---|---|---|---|---|
| Hayes and Harlington .. | 527 | *26·0 (*22·6*) | Brentford and Chiswick.. | 984 | 16·1 (*16·2*) |
| Kingsbury .. .. | 277 | 21·2 (*21·4*) | Southall-Norwood .. | 596 | 15·9 (*14·1*) |
| Yiewsley and West Drayton .. .. .. | 239 | *20·5 (†*25·4*) | Tottenham .. .. | 2,510 | 15·9 (*16·5*) |
| Feltham .. .. .. | 277 | *20·3 (*17·6*) | Harrow .. .. .. | 408 | 15·8 (*16·7*) |
| Wealdstone .. .. | 495 | 20·3 (*19·8*) | Twickenham (Borough) .. | 596 | 15·6 (*15·4*) |
| Sunbury .. .. .. | 223 | *19·1 (*16·4*) | Enfield .. .. .. | 1,035 | 15·5 (*16·1*) |
| South Mimms (Rural) .. | 96 | 18·8 (*14·5*) | Hendon (Urban) .. .. | 1,520 | 15·4 (*18·1*) |
| Uxbridge .. .. .. | 554 | 18·4 (†*17·3*) | Hampton .. .. .. | 188 | 14·9 (*14·1*) |
| Edmonton .. .. | 1,403 | 18·3 (*17·3*) | Ruislip-Northwood .. | 223 | 14·8 (*16·0*) |
| Heston and Isleworth .. | 1,206 | 17·1 (*17·1*) | Ealing (Borough) .. | 1,632 | 14·6 (*14·7*) |
| *Staines (Rural)* .. .. | *132* | *17·0 (*17·9*) | Teddington .. .. | 325 | 14·2 (*15·0*) |
| Willesden .. .. | 3,011 | 16·7 (*16·5*) | Friern Barnet .. .. | 314 | 14·0 (*14·3*) |
| Wembley .. .. .. | 700 | 16·4 (*17·1*) | Wood Green .. .. | 719 | 13·3 (*13·5*) |
| Acton (Borough).. .. | 1,105 | 16·2 (*15·7*) | Finchley .. .. .. | 748 | 13·1 (*12·8*) |
| Staines (Urban) .. .. | 277 | *16·2 (*15·3*) | Hornsey (Borough) .. | 1,209 | 13·1 (*13·8*) |
| Hendon (Rural) .. .. | 674 | 16·2 (*17·1*) | Southgate .. .. | 607 | 11·5 (*11·2*) |
| | | | Hampton Wick .. .. | 30 | 10·1 (*11·7*) |

Figures in brackets indieate birth-rates in 1929.

* These rates are ealeulated from the population figures supplied by the Registrar-General and adjusted as result of the change in boundary eonsequent on the abolition of Staines Rural Distriet in April, 1930.

† These rates are based on the Registrar-General's adjusted population figures, which take aeeount of the Rural District of Uxbridge being transferred partly to Uxbridge Urban District and partly to the Urban District of Yiewsley and West Drayton in April, 1929.

Still-Births.—The number of still-births registered in 1930 was 894, equivalent to a rate of 36·1 per 1,000 total births or 0·57 still-births per 1,000 population, as compared with a rate of 0·69 for the whole country.

Deaths and Death-Rates (all Causes).—The corrected number of deaths belonging to the County, occurring during 1930 was 14,658, or 2,047 fewer than occurred in the course of the previous year. This corresponds to a death-rate of 9·4 per 1,000 persons living and constitutes a low record for the County.

The figures for the last five years relating to Middlesex, London, the Great Towns and England and Wales as a whole are as follows :—

| Year. | The County. | | London. | Great Towns. | England and Wales. |
|---|---|---|---|---|---|
| | Deaths. | Rate per 1,000 living. | Rate per 1,000 living. | Rate per 1,000 living. | Rate per 1,000 living. |
| 1926 .. .. .. .. .. .. | 12,941 | 9·8 | 11·6 | 11·6 | 11·6 |
| 1927 .. .. .. .. .. .. | 14,325 | 10·6 | 11·9 | 12·2 | 12·3 |
| 1928 .. .. .. .. .. .. | 14,050 | 9·9 | 12·1 | 11·6 | 11·7 |
| 1929 .. .. .. .. .. .. | 16,705 | 11·5 | 13·8 | 13·7 | 13·4 |
| 1930 .. .. .. .. .. .. | 14,658 | 9·4 | 11·4 | 11·5 | 11·4 |

The various causes to which the 14,658 deaths were ascribed are enumerated and classified in the table which appears on page 6. As in preceding years heart disease, cancer, tuberculosis (all forms), pneumonia (all forms), cerebral haemorrhage and arterio-sclerosis (which two conditions should be considered together) and bronchitis constitute the principal causes of death. After the experience of 1929, when in the early part of the year influenza and respiratory diseases were responsible for heavy mortality throughout the country, 1930 has proved a comparatively benign year in respect of respiratory diseases.

The death-rates (per 1,000 persons living) of the principal causes of death for the past five years are as follows :—

| | 1926. | 1927. | 1928. | 1929. | 1930. |
|---|---|---|---|---|---|
| Heart disease .. .. .. .. | 1·52 | 1·73 | 1·73 | 2·32 | 1·91 |
| Cancer .. .. .. .. .. | 1·37 | 1·40 | 1·33 | 1·33 | 1·28 |
| Tuberculosis (all forms) .. .. .. | 0·86 | 0·88 | 0·76 | 0·83 | 0·75 |
| Pneumonia (all forms) .. .. .. | 0·67 | 0·78 | 0·65 | 0·88 | 0·58 |
| Cerebral haemorrhage, &c. .. .. | 0·56 | 0·50 | 0·44 | 0·47 | 0·49 |
| Arterio-sclerosis .. .. .. .. | 0·39 | 0·49 | 0·56 | 0·47 | 0·37 |
| Bronchitis .. .. .. .. .. | 0·53 | 0·68 | 0·45 | 0·64 | 0·31 |

Although tuberculosis ranks third in the list of causes of death, the death-rate from all forms of the disease in Middlesex has fallen to 0·75, which is the lowest recorded figure. Cancer, which during the past decade has been increasing both as a cause of death and (probably) in actual incidence, gives no indication in 1930 of further increase.

The table on page 7 gives information as to the number of deaths and the death-rates in each sanitary district of the County.

Detailed information as to the different diseases which contributed towards the total number of deaths and the age groups in which these deaths occurred is given in the following table :—

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF MIDDLESEX, 1930.

| Causes of Death. | All Ages. | 0— | 1— | 2— | 5— | 15— | 25— | 45— | 65— | 75— |
|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Enteric fever | 9 | — | — | — | 1 | 2 | 4 | 2 | — | — |
| 2. Smallpox | 4 | — | — | — | — | — | — | 2 | 2 | — |
| 3. Measles | 135 | 26 | 52 | 37 | 16 | 2 | — | 2 | — | — |
| 4. Scarlet fever | 32 | — | 3 | 9 | 13 | 3 | 4 | — | — | — |
| 5. Whooping-cough | 44 | 18 | 12 | 13 | 1 | — | — | — | — | — |
| 6. Diphtheria | 151 | 6 | 9 | 41 | 89 | 3 | — | 3 | — | — |
| 7. Influenza | 137 | 4 | 1 | — | 4 | 8 | 19 | 47 | 26 | 28 |
| 8. Encephalitis lethargica | 28 | — | — | 1 | 3 | 3 | 10 | 7 | 3 | 1 |
| 9. Meningococcal meningitis | 24 | 6 | 2 | 2 | 4 | 4 | 4 | 2 | — | — |
| 10. Tuberculosis of respiratory system | 981 | 5 | 2 | 7 | 13 | 243 | 436 | 235 | 31 | 9 |
| 11. Other tuberculous diseases | 183 | 17 | 20 | 31 | 28 | 30 | 27 | 24 | 5 | 1 |
| 12. Cancer, malignant disease | 1,990 | — | — | 1 | 4 | 14 | 149 | 832 | 592 | 398 |
| 13. Rheumatic fever | 65 | — | — | 1 | 26 | 13 | 19 | 5 | — | 1 |
| 14. Diabetes | 163 | — | 1 | 1 | — | 1 | 12 | 48 | 60 | 40 |
| 15. Cerebral hæmorrhage, &c. | 757 | — | — | — | — | 1 | 23 | 202 | 242 | 289 |
| 16. Heart disease | 2,984 | — | — | 1 | 26 | 45 | 163 | 757 | 870 | 1,122 |
| 17. Arterio-sclerosis | 570 | — | — | — | — | — | 4 | 109 | 193 | 264 |
| 18. Bronchitis | 482 | 38 | 2 | 7 | 6 | 2 | 15 | 77 | 100 | 235 |
| 19. Pneumonia (all forms) | 902 | 141 | 62 | 32 | 20 | 27 | 108 | 237 | 132 | 143 |
| 20. Other respiratory diseases | 165 | 6 | 1 | 6 | 5 | 7 | 21 | 41 | 31 | 47 |
| 21. Ulcer of stomach or duodenum | 199 | — | — | — | — | 1 | 41 | 105 | 36 | 16 |
| 22. Diarrhœa, &c. | 177 | 115 | 16 | 5 | 3 | 5 | 11 | 6 | 7 | 9 |
| 23. Appendicitis and typhlitis | 114 | — | — | 5 | 10 | 18 | 31 | 29 | 15 | 6 |
| 24. Cirrhosis of liver | 60 | — | — | — | 1 | — | 4 | 38 | 17 | — |
| 25. Acute and chronic nephritis | 416 | 2 | — | — | 5 | 18 | 52 | 140 | 121 | 78 |
| 26. Puerperal sepsis | 55 | — | — | — | — | 5 | 50 | — | — | — |
| 27. Other accidents and diseases of pregnancy and parturition | 48 | — | — | — | — | 6 | 41 | 1 | — | — |
| 28. Congenital debility and malformation, premature birth | 588 | 568 | 4 | 4 | 5 | 3 | 4 | — | — | — |
| 29. Suicide | 187 | — | — | — | — | 12 | 68 | 84 | 20 | 3 |
| 30. Other deaths from violence | 624 | 26 | 9 | 25 | 52 | 103 | 106 | 116 | 83 | 104 |
| 31. Other defined diseases | 2,381 | 212 | 32 | 41 | 76 | 85 | 256 | 568 | 444 | 667 |
| 32. Causes ill-defined or unknown | 3 | — | — | — | — | — | — | 2 | 1 | — |
| All Causes | 14,658 | 1,190 | 228 | 270 | 411 | 664 | 1,682 | 3,721 | 3,031 | 3,461 |

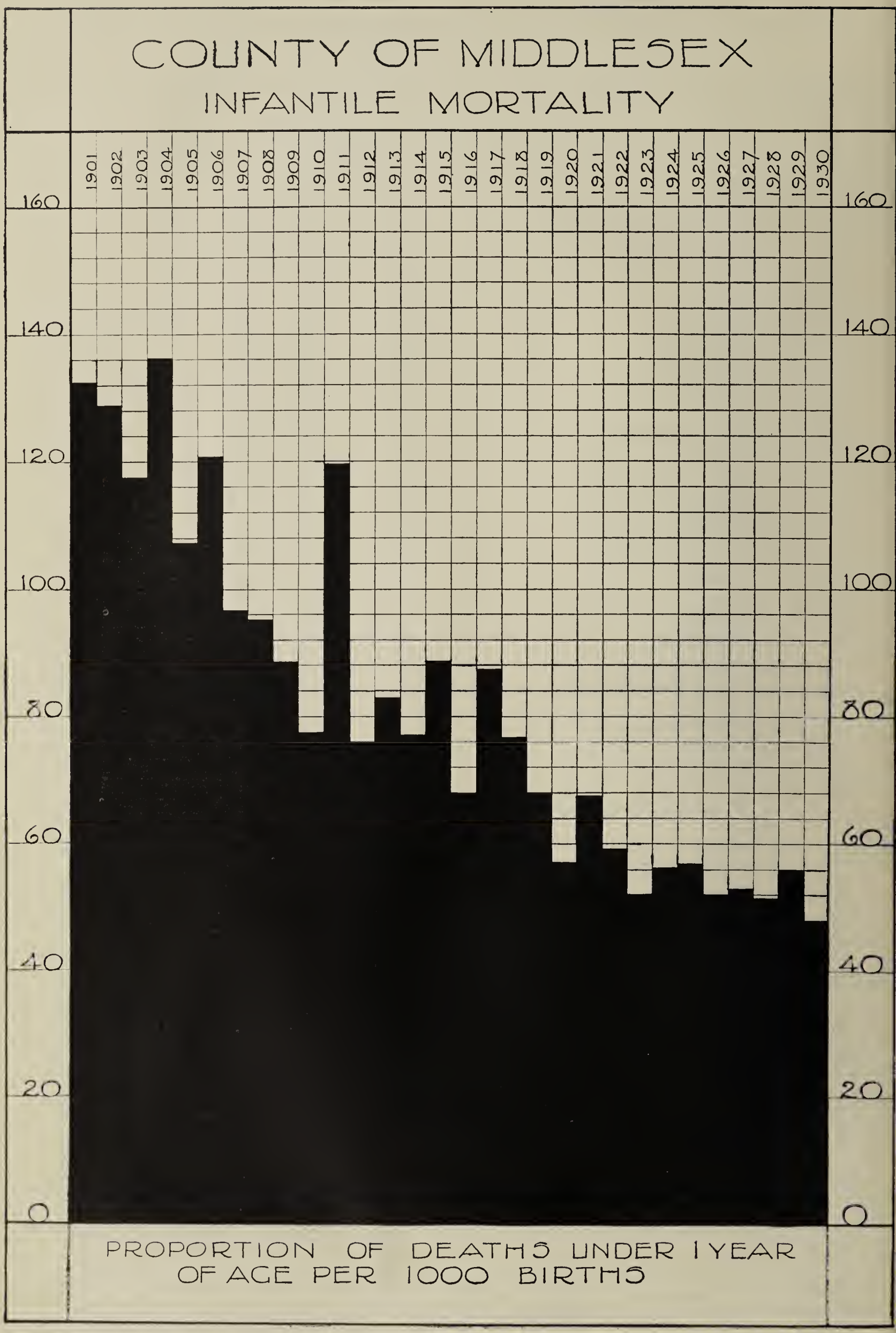
DEATHS AND DEATH-RATES IN EACH DISTRICT, 1930.

| District. | Under 1 year of age. | | At all ages. | |
|---|---|---|---|---|
| | No. | Rate per 1,000 births. | No. | Rate per 1,000 living. |
| *Urban—* | | | | |
| Acton (*Borough*) .. .. .. | 56 | 51 | 693 | 10·2 |
| Brentford and Chiswick .. .. | 48 | 49 | 668 | 10·9 |
| Ealing (*Borough*) .. .. .. | 71 | 44 | 1,139 | 10·2 |
| Edmonton .. .. .. .. | 75 | 53 | 718 | 9·4 |
| Enfield .. .. .. .. | 54 | 52 | 639 | 9·6 |
| Feltham .. .. .. .. | 12 | 43 | 96 | 7·2* |
| Finchley .. .. .. .. | 38 | 51 | 557 | 9·8 |
| Friern Barnet .. .. .. | 15 | 48 | 172 | 7·7 |
| Hampton .. .. .. .. | 5 | 27 | 121 | 9·6 |
| Hampton Wick .. .. .. | 2 | 67 | 28 | 9·4 |
| Harrow .. .. .. .. | 8 | 20 | 197 | 7·6 |
| Hayes and Harlington .. .. | 34 | 65 | 151 | 7·5* |
| Hendon .. .. .. .. | 77 | 51 | 846 | 8·6 |
| Heston and Isleworth .. .. | 60 | 50 | 647 | 9·3 |
| Hornsey (*Borough*) .. .. .. | 50 | 41 | 1,050 | 11·3 |
| Kingsbury .. .. .. .. | 10 | 36 | 77 | 5·9 |
| Ruislip-Northwood .. .. | 13 | 58 | 123 | 8·5 |
| Southall-Norwood .. .. .. | 23 | 39 | 275 | 7·3 |
| Southgate .. .. .. .. | 22 | 36 | 498 | 9·4 |
| Staines .. .. .. .. | 11 | 40 | 162 | 9·5* |
| Sunbury .. .. .. .. | 7 | 31 | 94 | 8·1* |
| Teddington .. .. .. .. | 14 | 43 | 264 | 11·5 |
| Tottenham .. .. .. .. | 137 | 55 | 1,567 | 10·0 |
| Twickenham (*Borough*) .. .. | 24 | 40 | 356 | 9·3 |
| Uxbridge .. .. .. .. | 20 | 36 | 228 | 8·0 |
| Wealdstone .. .. .. .. | 16 | 32 | 181 | 7·4 |
| Wembley .. .. .. .. | 28 | 40 | 315 | 7·4 |
| Willesden .. .. .. .. | 173 | 57 | 1,730 | 9·6 |
| Wood Green .. .. .. | 26 | 36 | 534 | 9·9 |
| Yiewsley and West Drayton .. | 18 | 75 | 101 | 8·8* |
| *Rural—* | | | | |
| Hendon .. .. .. .. | 25 | 37 | 286 | 6·9 |
| South Mimms .. .. .. | 6 | 62 | 52 | 10·2 |
| *Staines* .. .. .. .. | *12* | 91 | 93 | 12·0* |
| The County .. .. | 1,190 | 48 | 14,658 | 9·4 |

** These rates are calculated from the population figures supplied by the Registrar-General and adjusted as result of the change in boundary consequent on the abolition of Staines Rural District in April, 1930.*

INFANTILE MORTALITY.—The number of deaths of infants under one year of age occurring during 1930 was 1,190, equivalent to an infantile mortality rate of 48 per 1,000 births. This figure constitutes a new low record for the County and in addition is very definitely below the rate for the country at large. Comparative figures for Middlesex, London, the Great Towns and England and Wales are set out in the following table :—

| Year. | The County. | | | London. | Great Towns. | England and Wales. |
|---|---|---|---|---|---|---|
| | Births. | Deaths under 1 year. | Rate per 1,000 births. | Rate per 1,000 births. | Rate per 1,000 births. | Rate per 1,000 births. |
| 1926 .. .. .. .. | 21,703 | 1,122 | 52 | 64 | 73 | 70 |
| 1927 .. .. .. .. | 21,123 | 1,125 | 53 | 59 | 71 | 69 |
| 1928 .. .. .. .. | 22,665 | 1,168 | 51·5 | 67 | 70 | 65 |
| 1929 .. .. .. .. | 23,331 | 1,312 | 56 | 70 | 79 | 74 |
| 1930 .. .. .. .. | 24,840 | 1,190 | 48 | 59 | 64 | 60 |


COUNTY OF MIDDLESEX
INFANTILE MORTALITY
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
160
140
120
100
80
60
40
20
0
PROPORTION OF DEATHS UNDER 1 YEAR
OF AGE PER 1000 BIRTHS

Of the infantile deaths which occurred, 568, or nearly one-half, are attributable to congenital or developmental conditions, and, in the light of our present knowledge, these can only be classified as not preventable. Of avoidable causes of death, pneumonia was responsible for 141 deaths of infants (11·8 per cent.) and diarrhœa for 115 (9·7 per cent.).

Information as to the number of deaths of infants and the infantile mortality rate in each sanitary district in the County is given in the table on page 7 ; whilst on page 8 appears a diagram illustrating the variations which have occurred in the infantile mortality rate in Middlesex since the beginning of the present century.

Maternal Mortality.—A notable and disquieting increase in the number of deaths of women from conditions due to, or associated with child-birth is revealed by the figures for the year 1930. During the year, 103 women lost their lives from diseases and accidents of pregnancy and parturition (or 27 more than in the preceding year). This corresponds to a maternal mortality rate of 4·15 per 1,000 live-births, which is the highest figure ever recorded for this County. The maternal mortality rate for England and Wales for 1930 was 4·40. The increase of the rate over that recorded for previous years is chiefly due to the relatively large number of deaths which occurred from puerperal sepsis. The following table shows a classification of maternal deaths during the past five years :—

| Year. | Puerperal sepsis. | | Other accidents and diseases of pregnancy and parturition. | | Total. | |
|---|---|---|---|---|---|---|
| | Number of deaths. | Rate per 1,000 births. | Number of deaths. | Rate per 1,000 births. | Maternal deaths. | Maternal mortality rate. |
| 1926 .. .. .. .. | 30 | 1·38 | 34 | 1·57 | 64 | 2·95 |
| 1927 .. .. .. .. | 24 | 1·14 | 40 | 1·89 | 64 | 3·03 |
| 1928 .. .. .. .. | 42 | 1·85 | 44 | 1·94 | 86 | 3·79 |
| 1929 .. .. .. .. | 27 | 1·16 | 49 | 2·10 | 76 | 3·26 |
| 1930 .. .. .. .. | 55 | 2·21 | 48 | 1·93 | 103 | 4·15 |

On page 10 appears a diagram illustrating the variations in maternal mortality since the year 1911. A consideration of this chart affords no cause for satisfaction, as it indicates no decline in the total maternal mortality rate during the past twenty years, but rather the reverse, and, moreover, shows an increasing death-rate from puerperal sepsis over that period.

The Departmental Committee on Maternal Mortality and Morbidity, which was set up by the Minister of Health, produced an interim report in August, 1930. This report contained an analysis of the investigation of two thousand maternal deaths which had occurred in England and Wales. The considered opinion at which this expert committee arrived was that approximately one-half of these deaths might have been avoided. The avoidable causes of death were classified by the committee into four groups :—(*a*) absence of ante-natal care (17 per cent.) ; (*b*) errors of judgment in practice or treatment by doctors or midwives (17 per cent.) ; (*c*) lack of reasonable facilities for effective medical care (5 per cent.) ; (*d*) negligence on the part of the patient or her friends to carry out medical advice (9 per cent.).

Among the suggestions made by the Committee, in addition to advising better training of medical students and of midwives in the practice of obstetrics, was a proposal to establish a National Maternity Service, to include :—

(1) The provision *in every case* of the services of a qualified midwife to act either as midwife or as maternity nurse.

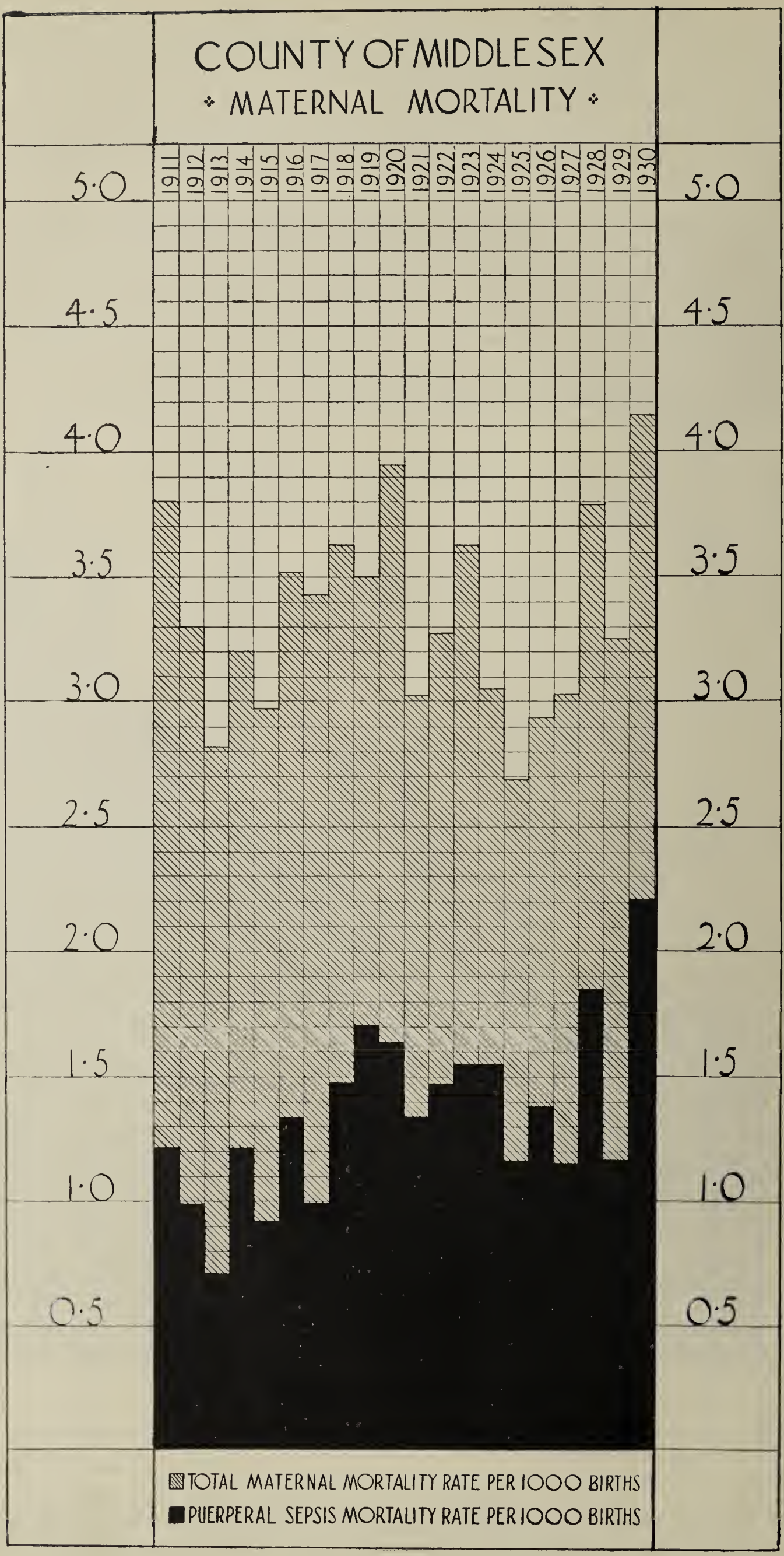
(2) The provision of a doctor to carry out ante-natal and post-natal examination *in every case* and to attend during pregnancy, labour or the puerperium, as necessary, all abnormal cases.

(3) The provision of a consultant when desired by a doctor in difficult cases.

(4) The provision of an adequate number of hospital beds.

(5) The provision of certain additional services (ambulances, sterilized maternity outfits and laboratory facilities.)

Such a scheme in its entirety would involve very considerable public expenditure, and up to the present legislation based on the suggestions has not been undertaken. Existing powers, however, wisely applied enable local authorities to go far towards carrying out the proposals of the Committee.


COUNTY OF MIDDLESEX
MATERNAL MORTALITY
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
5·0
4·5
4·0
3·5
3·0
2·5
2·0
1·5
1·0
0·5
TOTAL MATERNAL MORTALITY RATE PER 1000 BIRTHS
PUERPERAL SEPSIS MORTALITY RATE PER 1000 BIRTHS

## Sanitary Circumstances.

In my survey report for 1925 certain information was included in summary form relating to important sanitary services or provisions carried out in the various districts making up the administrative county. The particulars referred to dealt with water-supply, drainage and sewerage, refuse disposal and housing. In the present quinquennial review it was considered opportune again to survey the position in the County with regard to sanitary services as it existed at the close of 1930 and, accordingly, I have been in communication with the medical officers of health of all the local sanitary authorities of the County and these have kindly furnished me with detailed particulars relating to their several districts, upon which the following survey is based.

### Water Supply.

The County of Middlesex is fortunate in being provided with an abundant supply of pure water. In great part this is river water suitably treated by storage or otherwise, and is derived largely from the rivers by which the County is bounded, the Thames, the Lea and the Colne, supplemented by deep borings. With the exception of a very few isolated cottages, situated in the still rural parts of the county, which depend for their water upon shallow wells, the entire area of the County is served by public water supplies.

County of Middlesex.

| District. | Public Water Supply. | Houses supplied, per cent. of whole. |
|---|---|---|
| *Urban—* | | |
| Acton (*Borough*) | Metropolitan Water Board | 100 |
| Brentford and Chiswick | ,, ,, ,, | 99·9 |
| Ealing (*Borough*) | Metropolitan Water Board & Rickmansworth & Uxbridge Valley Water Co. | 100 |
| Edmonton | Metropolitan Water Board | Practically 100. |
| (*a*)Enfield | ,, ,, ,, | All except about 20 houses. |
| Feltham | South West Suburban Water Company | 98 |
| Finchley | Barnet District Gas & Water Company | 100 |
| Friern Barnet | ,, ,, ,, ,, | 100 |
| Hampton | Metropolitan Water Board | 100 |
| (*b*)Hampton Wick | ,, ,, ,, | 100 |
| (*c*)Harrow | Colne Valley Water Company | 100 |
| (*d*)Hayes and Harlington | Rickmansworth & Uxbridge Valley Water Co. | 99 |
| (*e*)Hendon | Metropolitan Water Board | All except 3 houses. |
| (*f*)Heston and Isleworth | ,, ,, ,, | 99·95 |
| Hornsey (*Borough*) | ,, ,, ,, | 100 |
| Kingsbury | Colne Valley Water Company | 100 |
| (*g*)Ruislip-Northwood | ,, ,, ,, | All except 5 cottages. |
| (*h*)Southall-Norwood | South West Suburban Water Company | 99·93 |
| (*i*)Southgate | Metropolitan Water Board | 100 |
| (*j*)Staines | South West Suburban Water Company | 97 |
| (*k*)Sunbury | Metropolitan Water Board | 75 approx. |
| (*l*)Teddington | ,, ,, ,, | 99·4 |
| Tottenham | ,, ,, ,, | 100 |
| (*m*)Twickenham (*Borough*) | ,, ,, ,, | 98·5 |
| (*n*)Uxbridge | Uxbridge District Council Waterworks | 99 |
| Wealdstone | Colne Valley Water Company | 100 |
| (*o*)Wembley | ,, ,, ,, | All except 4 houses. |
| Willesden | Metropolitan Water Board | 100 |
| Wood Green | ,, ,, ,, | 100 |
| (*p*)Yiewsley & West Drayton | Rickmansworth & Uxbridge Valley Water Company | 80 approx. |
| *Rural.* | | |
| (*q*)Hendon | Colne Valley Water Company | 100 |
| South Mimms | Barnet Gas & Water Company | 99 |

(*a*) *Enfield.*—Barnet Gas and Water Company supply a few houses in Hadley Wood.

(*b*) *Hampton Wick.*—There are two houses dependent on supply from wells. These wells are shallow.

(*c*) *Harrow.*—Wood End Estate, South Harrow, supplied by the Rickmansworth and Uxbridge Valley Water Company.

(*d*) *Hayes and Harlington.*—South West Suburban Water Company supply Cranford, and Allied Building Corporation supply their own houses from artesian well at Hayes End. Some houses at Hayes Gate and Dawley supplied from shallow wells.

(*e*) *Hendon* (*Urban*).—North, North-Western and Western portion of district supplied by Colne Valley Water Company.

(*f*) *Heston and Isleworth.*—Small part of the district at Cranford End supplied by South West Suburban Water Company. A small portion of the district is without a public water supply, a few isolated houses being supplied from shallow wells.

(*g*) *Ruislip-Northwood.*—Five cottages supplied by shallow wells.

(*h*) *Southall-Norwood.*—A number of houses at North Hyde and on the Adelaide Estate supplied by the Metropolitan Water Board.

(*i*) *Southgate.*—Six cottages at extreme boundary of N.W. Ward supplied by Barnet Water Company.

(*j*) *Staines.*—Public water supply not available for small part of the district. Stanwell Moor supplied by shallow wells, principally tubular borings about fifteen feet deep.

(*k*) *Sunbury.*—Shepperton and Littleton supplied by West Surrey Water Company, and Ashford Common by South Western Suburban Water Company. Several groups of cottages in the district (mainly in the newly extended area) are dependent on supply from shallow wells.

(*l*) *Teddington.*—Public water supply not available on Trowlock Island. There are three shallow wells in the district.

(*m*) *Twickenham.*—Several houses in portion of borough adjoining Feltham are dependent on shallow wells. These are being eliminated gradually.

(*n*) *Uxbridge.*—Rickmansworth and Uxbridge Valley Water Company supplies the parishes of Harefield, Ickenham, Cowley and Hillingdon East.

(*o*) *Wembley.*—Four houses at Kenton supplied by main owned by the London, Midland and Scottish Railway Company and obtained from their private water works at Bushey.

(*p*) *Yiewsley and West Drayton.*—Parts of the parish of Harmondsworth supplied by shallow wells.

(*q*) *Hendon* (*Rural*).—Sixteen houses at Hatch End, Pinner, supplied from main owned by London, Midland and Scottish Railway Company.

## Rivers and Streams.

The maintenance of the two principal rivers of Middlesex, the Thames and the Lea, is undertaken by the Thames Conservancy Board and the Lea Conservancy Board, on each of which bodies the Middlesex County Council is represented. Powers have been conferred upon the County Council by the Middlesex County Council Act of 1898 and subsequent Acts to undertake the supervision, cleansing and maintenance of the other various rivers and streams of the County. The work is carried out by the County Engineer and his staff, to whom I am indebted for the following information regarding the activities of the Rivers Committee.

During the past five years the Rivers Committee has authorised the taking over by the County Council for maintenance purposes of an additional 60 miles of water courses, making a total length of rivers and streams of some 190 miles under the supervision of the County Council.

*Flood Water.*—In the winter months of 1927–28 an exceptionally heavy rainfall was experienced which caused serious flooding, both in certain of the districts bordering the River Thames, and in other areas within the County owing to the overflowing of the Rivers Brent and Crane.

The statutory powers the County Council obtained in 1898 and subsequent Acts were the result of numerous complaints received as to the polluted and obstructed condition of the rivers and streams, and the works carried out under these Acts have been chiefly of maintenance and prevention of pollution. With the development of the County these streams and rivers really function as main surface water sewers, and at present there is no authority wholly responsible for their efficiency for this purpose.

Future provision for the main surface water drainage of the County is becoming an engineering problem and one which should be dealt with by a central authority.

As a result of the serious damage caused by inundation in 1927–28, the Rivers Committee of the County Council convened conferences with representatives of the local authorities affected and other interested persons to discuss the position.

These conferences expressed themselves in no uncertain terms as to the necessity for a central authority invested with powers to deal with the flooding question ; the Rivers Committee, in April, 1928, endorsed the opinion expressed at the conferences, and the County Council authorized the expenditure of £4,000 in connection with the preparation of a detailed report upon the watersheds of the Brent and Crane catchment areas.

The work is being undertaken by the County Engineer and is of necessity a lengthy proceeding, calling as it does for a detailed survey of the two rivers and their tributaries, which total in all some 70 miles, and the making of numerous observations as to levels and flow of water during dry and wet seasons and after normal and abnormal rainfalls.

*Pollution.*—During the past five years some 83,000 new houses have been erected in the County, and, as can readily be understood, the resulting greatly increased volume of domestic sewage has thrown a very heavy strain upon the sewage disposal works belonging to the several local sanitary authorities. More particularly is this the case in some of the more peripheral parts of the County where growth of population and of houses has been phenomenally rapid and where the sewage disposal works were originally constructed to deal with a small population living under rural or semi-rural conditions. The following table gives information regarding samples taken by officers of the County Council of effluents from sewage works of local authorities during the year 1930 :—

| Sewage Works. | Good. | Moderate. | Bad. | Total. |
|---|---|---|---|---|
| Ealing (Greenford) | 1 | 1 | — | 2 |
| Ealing (Hanwell) | 1 | — | — | 1 |
| Ealing | 1 | — | — | 1 |
| Edmonton | 8 | — | 1 | 9 |
| Enfield | 6 | — | — | 6 |
| Finchley | 6 | — | — | 6 |
| Friern Barnet | — | 1 | — | 1 |
| Harrow (Roxeth) | 2 | 1 | — | 3 |
| Hayes | 4 | 2 | 1 | 7 |
| Hendon R. (Pinner) | 3 | — | — | 3 |
| ,, (Edgware) | 1 | — | — | 1 |
| ,, (Great Stanmore) | 3 | — | — | 3 |
| Hendon Urban | 8 | — | — | 8 |
| Hornsey | 5 | — | — | 5 |
| Kingsbury | 1 | 1 | — | 2 |
| Southall | 1 | — | — | 1 |
| Uxbridge Rural | 1 | — | — | 1 |
| Wembley | 2 | 1 (Unsatisfactory on account of smell) | — | 3 |
| Wealdstone | 4 | — | — | 4 |
| Totals | 58 | 7 | 2 | 67 |

In addition to pollution of rivers and streams caused by unsatisfactory effluents from sewage disposal works, considerable difficulty and nuisance has been occasioned by certain trade effluents gaining access to watercourses. Particularly has this been the case with the River Crane into which are discharged waste products from certain jam factories. Such effluents, containing large amounts of saccharine substances, give rise to a most offensive form of pollution in streams and present great technical difficulties in the way of treatment to render them innocuous. Moreover, waste substances of this nature, if discharged into sewers, are liable to affect the purification of sewage at the outfall works, and accordingly local authorities often decline to accept effluents containing sugars and like substances in solution.

## Drainage and Sewerage.

The table on pages 15 and 16 gives information as to the drainage and sewerage of each of the separate sanitary districts of the County. As already has been pointed out the sewage disposal works of local sanitary authorities for some years have been labouring under very considerable difficulties owing to the extraordinarily rapid development of the County. This has been the case particularly in the west of the County, where the growth has been the most rapid, and where, in the southern part, in the Thames Valley, the problem has been further complicated by difficulties of levels. In 1928 the County Council approved the employment of a consulting engineer to make a survey of West Middlesex and prepare a report upon a comprehensive plan of sewage disposal for the western area of the County. Mr. John D. Watson, M.Inst.C.E., of Birmingham, was appointed to undertake this work and in 1929 he presented his report to the County Council. Upon the reception of this report conferences between the County Council and the local authorities of the western area were convened and as a result of the resolutions passed at these conferences the County Council decided to promote a Bill in Parliament to constitute the Middlesex County Council a main sewerage authority for the west of the County. The Bill was drafted and introduced in the House of Lords; (it eventually passed through all its stages and received the Royal Assent in June, 1931).

I am indebted to the County Solicitor for the following memorandum upon the Middlesex County Council Bill :—

"The object of the Bill is to confer upon the Middlesex County Council the powers of a main sewerage authority in so far as the western area of the County is concerned.

The County Council are possessed of full powers under their Acts of 1898, 1906, 1921 and 1930 in regard to the protection and pollution of rivers within their administrative area and have experienced much difficulty in conserving the purity of the streams and in the execution of adequate works of improvement thereto to cope with flood waters.

The majority of the local authorities' sewerage systems are constructed on the separate and not the combined basis, and, with a view to minimising the volume of sewage to be treated at the purification works, the domestic sewage only is conveyed there and the storm water finds its way into the nearest stream. It is, therefore, obvious that in a County like Middlesex, where the population during the last ten years has increased in certain localities by over one hundred and fifty per cent., where the

building operations have been phenomenal, and impervious areas due to natural development increased, the susceptibility to flooding and pollution of streams has been intensified and will present even greater difficulties in the future.

Many local authorities have also experienced difficulty in their endeavour to keep pace with the rapid growth and development of their respective areas by the provision of extended works, and although in the last few years nearly half a million pounds has been expended by them in this respect further works are and will be required as and when the population increases.

The County of Middlesex is naturally divided by the watershed boundary passing through Finchley and Chipping Barnet, the eastern area draining into the Lea Valley and the western part into the Thames.

The County Council early in 1928 resolved to instruct Mr. John D. Watson, of Messrs. Dodd & Watson, of Birmingham, to make a comprehensive report on the sewerage and sewage disposal in that part of the County which drains into the River Thames. This report gives a detailed survey of the present conditions in the western area and it is pointed out that there are in existence no less than twenty-seven works, none of which employs the bio-aeration principle. Ten of these works discharge their effluent into the Brent, five into the Crane, three into the Colne, two into the Ash and seven into the Thames. The Colne and the Ash join the Thames above Teddington Lock.

In short, Mr. Watson suggested that a drainage board should be constituted for the western part of the County, to become the executive authority for the whole district, and that such board should reduce to a minimum, if not abandon *in toto*, the local sewage works and concentrate intercepting sewers to the most suitable site available on the Thames for purification purposes, the sewage sludge to be eliminated from the liquid and efficiently disposed of.

It was eventually decided to eliminate Willesden and Acton from the purview of the scheme as both these authorities have agreements for the reception into the sewers of the London County Council of the whole of the sewage of the former and the greater portion of the latter district.

Hampton Wick Urban District Council entered into an agreement with the Kingston Corporation in 1921 for a period of twenty-one years for the reception and disposal of the sewage of its district. This agreement has eleven years unexpired.

Several conferences have been held between the County Council and the local authorities of the area, at which the following resolutions were, *inter alia*, passed :—

(1) " That this conference generally approves the scheme for Main Drainage for West Middlesex as set out in the report of Mr. J. D. Watson."

(2) " That the conference is of opinion that the scheme should be carried out by the County Council."

(3) " That the representatives of the local authorities present at this conference agree to recommend their respective authorities to adopt resolutions in favour of the above proposals."

In accordance with the last resolution intimations were received that fourteen local authorities were in agreement with the above, three were against and five were neutral.

Mr. Watson in his report draws attention to the fact that, owing to the physical configuration of the western part of the County, it is necessary to approach the problem of drainage by dividing the area under consideration into two zones, northern and southern.

(1) The Northern Zone, comprising the valleys of :—

Upper Brent, including the Urban Districts of Hendon, Wealdstone, Kingsbury, Wembley, part of Harrow, part of the Borough of Ealing and part of the Rural District of Hendon.

Upper Crane, including portions of the Urban Districts of Harrow, Ruislip-Northwood, portions of the Rural Districts of Hendon and Uxbridge and probably the Urban Districts of Hayes and Southall-Norwood.

Upper Colne, including portions of the Urban District of Ruislip-Northwood and the Rural District of Uxbridge.

Lower Brent, including the districts of Brentford, part of Ealing and possibly Southall-Norwood.

(2) The Southern Zone, comprising the valleys of :—

Lower Crane, including the districts of Heston and Isleworth, Twickenham, Teddington, Hampton and Hampton Wick.

Lower Colne and Ash, including the Urban Districts of Uxbridge, Staines, Feltham, Sunbury, Yiewsley and West Drayton and possibly part of Hayes and Harlington.

The scheme would entail the construction of trunk sewers to converge to a single purification works for the entire western area which it is proposed to construct at Mogden. This disposal works would operate on the activated sludge principle. The trunk sewers in the northern zone would convey the sewage by gravitation and those in the southern zone would for the most part be in tunnel and the sewage would require to be lifted by pumping at the purification works. It is intended to pick up the sewage at the site of the existing works and to convey same for treatment to Mogden. Each local authority would continue to be responsible for the sewering of its own area as heretofore, but, instead of laying its sewers to its own works, would connect up to the interceptors herein referred to.

PARTICULARS SUPPLIED BY LOCAL MEDICAL OFFICERS OF HEALTH AS TO DRAINAGE AND SEWERAGE IN EACH OF THE SANITARY DISTRICTS OF THE COUNTY.

| District. | Houses provided with water closets (per cent.). | Houses draining into sewers (per cent.). | Main sewerage system. | Where disposal works are situated. | Are works adequate for present, and future, needs of district ? | Disposal of excreta otherwise than at sewage works. | Cesspools. | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Emptied free of charge on behalf of or by District Council. | How often emptied. |
| *Urban*— | | | | | | | | |
| Acton (Borough) ... ... | 100 | 100 | Yes ... | Worple Way, Acton—emptying into London sewers | Yes ... ... ... ... ... | Two houses drain into cesspools | No ... ... ... | — |
| Brentford and Chiswick ... | 99·9 | 99·9 | Yes ... | (1) Corney Road, Chiswick—for Chiswick area; (2) Ealing Road, Brentford—for Brentford area | Yes. Chiswick works undergoing extensive alteration and reconstruction | — | — | —* |
| Ealing (Borough) ... ... | 99·8 | 99·4 | Yes ... | (1) South Ealing; (2) Perivale; (3) Hanwell; (4) Greenford; (5) Northolt | Adequate for present, but not for future, in the Greenford and Northolt Wards | Small number of cesspools in Greenford and Northolt Wards | No ... ... ... | — |
| Edmonton ... ... ... | Practically 100 | Practically 100 | Yes ... | Eastern Boundary — Lea Valley | Adequate at present, but doubtful if district becomes fully developed | — | No ... ... ... | No specified period, but as often as required. |
| Enfield ... ... ... | All except about 20 houses | 99·5 | Yes ... | Cuckoo Hall Sewage Farm, Lower Edmonton | Yes ... ... ... ... ... | On land and into sewers by lifting manhole covers | No ... ... ... | Once a month. |
| Feltham ... ... ... | 98 | About 5 | Yes, but not yet completed | Little Park Farm, Hanworth | Yes ... ... ... ... ... | By cesspools. 2 per cent. of houses have pail closets | No ... ... ... | On demand. |
| Finchley ... ... ... | 99·9 | 99·9 | Yes ... | Summers Lane, N.12 ... | Not at present; extensions in progress, which will render them adequate for considerable time | Where there are pail closets, excreta is dug into ground | No ... ... ... | No information available. |
| Friern Barnet ... ... | 100 | 100 | Yes ... | Eastern boundary of South Ward in Wood Green U.D. | No. Considerable new percolating filters, detritus and humus tanks are about to be constructed | — | — | — |
| Hampton ... ... ... | 99·33 | 99·33 | Yes ... | Hanworth Road, Hampton | Yes. Extensions can be made as required | On the land, and buried ... | Three only emptied free of charge | Weekly, and when necessary. |
| Hampton Wick ... ... | 100 | 99·5 | Yes ... | Kingston-on-Thames | Yes ... ... ... ... ... | By cesspools ... ... | No ... ... ... | Occasionally. |
| Harrow ... ... ... | 100 | 100 | Yes ... | Newton Farm, South Harrow | Yes. Not adequate for future needs... | — | — | — |
| Hayes and Harlington— | | | | | | | | |
| Hayes ... ... ... | 99 (approx.) | 95 | † | Hayes, East of Coldharbour Lane; Cranford, South of Bath Road | Insufficient at present ... ... ... | Pail closets, special site; Cesspools, to sewage works | Yes ... ... | As and when required. |
| Harlington ... ... | 50 (approx.) | Nil | | | | | | |
| Cranford ... ... | 60 (approx.) | 66 | | | | | | |
| Hendon ... ... ... | All except 17 houses | All except 76 houses | Yes ... | In North Circular Road and Hendon Way; Golders Green, South-West portion of district | Yes ... ... ... ... ... | — | Yes ... ... | When necessary. |
| Heston and Isleworth ... | 99 (approx.) | 99 (approx.) | Yes ... | Oak Lane, Worton Road, Isleworth | For present, but not for future, needs | In a few instances earth and chemical closets are in use. Contents disposed of on land adjoining | No ... ... ... | As circumstances require. |
| Hornsey (Borough) ... | 100 | 100 | Yes ... | 10,000 population, Coppetts Road, Muswell Hill; 80,000 population, L.C.C. sewers | Yes ... ... ... ... ... | — | No ... ... ... | — |
| Kingsbury ... ... ... | 99·9 | 99·9 | Yes ... | On Southern boundary of district | Under consideration ... ... ... | — | No ... ... ... | — |
| Ruislip-Northwood ... | 95 | 95 | Yes ... | Ruislip Common | For present, but further filter beds are contemplated owing to rapid growth of the population | By cesspool drainage and earth pail closets | Cesspools, No ... | Where necessary by owners. |
| | | | | | | | E.P. Closets, Yes | Twice weekly. |
| Southall-Norwood ... | 99·76 | 99·697 | Yes ... | Wyke Green, Isleworth | Yes, on completion of extensions now being carried out | — | No ... ... ... | Small number of earth closets emptied twice weekly. |
| Southgate ... ... | 100 | All except 13 houses | Yes ... | Edmonton U.D.C. sewage works | Yes ... ... ... ... ... | Into cesspools ... ... | No ... ... ... | As and when required. |
| Staines ... ... ... | 90 | 35 (approx.) | Yes ... | West Bedfont | For present, but not for future, needs... | Deposited on agricultural land | No ... ... ... | As required. |
| Sunbury ... ... ... | 60 (approx.) | 30 | Yes ... | Charlton | For present, but not for future, needs... | By burial or by spreading on agricultural lands | ‡ | ‡ |
| Teddington... ... ... | 99·5 | 99·5 | Yes ... | Broom Road, Teddington | Yes ... ... ... ... ... | — | — | — |
| Tottenham ... ... | All except 2 houses | All except 2 houses | Yes ... | Sewage pumped into L.C.C. main sewers. Pumping Station, Markfield Road, South Tottenham | — | — | No ... ... ... | As required. |
| Twickenham (Borough) ... | 99 | 98·5 | Yes ... | Within the Borough. | For present, additions will be necessary in future | — | Yes ... ... | Not yet decided. |
| Uxbridge ... ... ... | 98 (approx.) | 96 (approx.) | Yes ... | (1) Ickenham; (2) Uxbridge; (3) Cowley; (4) Two small works at Harefield | (1), (2) and (3) Yes. All capable of extension. (4) Irrigation sites only, will shortly be abolished | By contractors who are required to dispose of it without nuisance | Yes ... ... | Monthly. |
| Wealdstone ... ... | 99·9 | 99·8 | Yes ... | About middle of district, partly in Wealdstone, partly in Harrow Weald | No. Position under consideration ... | In four isolated cases excreta used for manurial purposes | No ... ... ... | — |
| Wembley ... ... ... | 99·9 | 99·9 | Yes ... | Perivale Lane, Alperton, Wembley | Extensions at present in course of construction | Buried in gardens ... ... | No ... ... ... | From time to time when necessary. |
| Willesden ... ... ... | 100 | 100 | Yes ... | Now carried to and discharged into L.C.C. sewers | Yes ... ... ... ... ... | — | — | — |
| Wood Green ... ... | All except 2 factories | All except 2 factories | Yes ... | Sewage discharged into Tottenham main sewers, and thence into L.C.C. sewers | Yes ... ... ... ... ... | — | — | — |
| Yiewsley and West Drayton | 90 (approx.) Harmondsworth Parish, 5 per cent. (approx.) | 90 (approx.) Harmondsworth Parish, 5 per cent. (approx.) | Yes ... | Moorfield Road, Cowley | For present needs, Barely: for future needs, No | Cesspools and earth buckets | Yes (except parish of Harmondsworth) | When required, approximately once a month. |
| *Rural*— | | | | | | | | |
| Hendon ... ... ... | All with very few exceptions | All with very few exceptions | Yes ... | (1) Canons Lane, Pinner; (2) and (3) Honey Pot Lane, Stanmore, and Kenton. Harrow Weald sewage dealt with at Wealdstone Sewage Disposal Works | Work in progress on construction of new tanks and filters at Pinner, and scheme is proposed for extension of Edgware and Little Stanmore works | Buried in gardens ... ... | Yes; on application by the tenants | When request is made. |
| South Mimms ... ... | 99 | 95 | Yes ... | Small works at South Mimms. Large works at Potters Bar | Yes. Recently enlarged ... ... | By cesspool ... ... ... | No ... ... ... | As required. |

* *Brentford and Chiswick.*—Cesspool in connection with Portland Cement Distributing Depot, Great West Road, Brentford, emptied by Council free of charge on average once in three weeks.

† *Hayes and Harlington.*—*Hayes.*—Sewered practically throughout where developed. *Harlington.*—Nil. *Cranford.*—Partly sewered.

‡ *Sunbury.*—In parts of the district, viz., Sunbury, Sunbury Common, Charlton and Upper Halliford, cesspools are cleansed free of charge.—Emptied twice yearly. In the extended area, Ashford Common, Littleton and Shepperton, a charge is made for the services.—Emptied on application.

The site of the purification works at Mogden is situated about one mile to the south-west of Syon Park and is bounded by four roads. The area adjacent on the north, west and south sides is undeveloped ; part of the land on the east side of the Twickenham Road has recently been built upon. The adjoining area on the south side is occupied by the Mogden Isolation Hospital. The south-west portion of the site is occupied by the Heston and Isleworth Sewage Disposal Works, for which about twenty-five acres are at present required.

The northern side is skirted by a margin of small industrial workshops, dwellings and a Congregational church. It is proposed to acquire approximately one hundred and thirty acres of land here in order to secure satisfactory isolation and approximately one-half of this is already owned by the local authority, and a portion of about twenty-five acres on the south-west has been purchased by the County Council by private treaty.

Mr. Watson in the first instance recommended the purchase of Syon Park, but having regard to the strenuous press campaign which was made against the proposal (as a matter of fact before the County Council had any recommendation from the Rivers Committee with respect to its acquisition) an alternative site was sought, which resulted in the Mogden estate being agreed. There is no doubt that from an engineering and economic point of view Syon Park was more adapted for this purpose and Mr. Watson recommended the Mogden site as the best possible alternative, having regard to levels and its proximity to the Thames.

In his report Mr. Watson states that he is clearly of the opinion that this site can be used for sewage purification without creating a nuisance of any kind. The main feature of the proposed work will be the construction of detritus and sedimentation tanks, bio-aeration, flocculation and finally separating tanks, and Mr. Watson is of the opinion that, although it is practicable to place all tanks underground, there is no necessity so to do and that the adoption of this course would be extravagant and unnecessary,

The Heston and Isleworth Urban District Council expressed anxiety on this matter and the Council have agreed to consider favourably the execution of any additional works which in the opinion of the Ministry of Health may be necessary for the purpose of allaying any public nuisance.

The question arose as to whether the sludge should be disposed of by means of conveyance out to sea in self-contained barges or whether it should be pumped to a comparatively isolated site for fermentation and digestion, and having regard, *inter alia*, to the comparative cost it was ultimately decided to pump it to a site at Longford to be disposed of there.

This site is approximately two hundred acres in area and is situate six and a half miles from the purification works. Any soakage there may be from these lands will automatically pass back into the intercepting sewer for treatment at the Mogden works.

The capacity of the intercepting sewers will be sufficient for some very considerable time to receive and cope with as much as twenty times the dry weather flow and it is regarded as of much importanee that this available space should be utilised to obviate flooding wherever possible. In this connection it should also be appreciated that, if the purity of the streams is to be conserved, it is essential that more storm water should be treated before being discharged to the water courses.

The effluent, after treatment at the Mogden works, will be discharged into the tidal waters of the Thames at Isleworth Ait. Many authorities have expressed concern on the question of the volume and character of the effluent which will be turned into the Thames and a clause has been inserted in the Bill providing that the standard of the effluent will be such as will comply with recommendations made by the Royal Commission on Sewage and Sewage Disposal in its Eighth Report.

The Unemployment Grants Committee have agreed to make a grant towards the cost of this Scheme, estimated at £5,250,000. The maximum sum upon which this grant will be based is £4,540,000, and it can be accepted on one of three bases, *i.e.* :—

(1) A grant of 60 per cent. of loan charges for the first 15 years and 30 per cent. for the second 15 years ;

(2) A grant of 75 per cent. of loan charges for the first 15 years ; and

(3) An equated grant of 50 per cent. of loan charges over 30 years."

The tables on pages 18 and 19 are taken from Mr. Watson's report. That on page 18 gives information regarding the disposal of effluent from existing sewage purification works, whilst in that on page 19 are set out certain details regarding the operation of such works.

TABLE PREPARED BY J. D. WATSON, ESQ., M.INST.C.E., SHOWING EXISTING SEWAGE PURIFICATION WORKS AND DISPOSAL OF EFFLUENTS IN THE WESTERN AREA OF MIDDLESEX.

| Authority. | No. of Sewage Disposal Works. | District Served. | Resident Population Served. | Area of Land Reserved (acres). | Watershed. | Final Effluent Discharged into | Above or Below Teddington Weir. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| Brentford and Chiswick U.D. | 2 | Brentford | 17,500 | 3 | Thames (Chiswick) | Thames | Below | |
| | | Chiswick | 40,800 | 13 | Thames (Chiswick) | Thames | Below | |
| Ealing M.B. | 4 | S. Ealing | 60,000 | 5 | Thames (Chiswick) | Thames | Below | |
| | | N. Ealing | 15,000 | 12 | Brent | Brent | Below | |
| | | Hanwell | 22,000 | 19 | Brent | Brent | Below | |
| | | Greenford | 3,000 | 10 | Brent | Brent | Below | Daily immigrant population 4,000 additional. |
| Feltham U.D. | 1 | Feltham | 7,500 | 15 | Crane | Crane | Below | Works in course of construction. |
| Hampton U.D. | 1 | Hampton | 13,000 | 17 | Ash | Thames | Above | |
| Hayes U.D. | 1 | Hayes | 13,500 | 8 | Crane | Crane | Below | Daily immigrant population 10,000 additional. |
| Harrow U.D. | 1 | Harrow | 14,000 | 61 | Crane | Yeading Brook | Below | A population of 8,500 of Harrow is served by the Wealdstone Sewage Disposal Works. |
| Hendon U.D. | 1 | Hendon | 89,000 | 161 | Brent | Brent | Below | |
| Hendon R.D. | 3 | Pinner | 18,000 | 49 | Crane | Yeading Brook | Below | A population of 2,500 of Harrow Weald is served by the Wealdstone Sewage Disposal Works. |
| | | Great Stanmore | 2,600 | 14 | Brent | Edgware Brook | Below | |
| | | Little Stanmore, Edgware | 8,000 | 29 | Brent | Kenton Brook | Below | |
| Heston and Isleworth U.D. | 1 | Heston and Isleworth | 60,000 | 38 | Crane | Thames | Below | |
| Kingsbury U.D. | 1 | Kingsbury | 6,000 | 10 | Brent | Brent | Below | Daily immigrant population 4,000 additional. |
| Ruislip-Northwood U.D. | 1 | Ruislip-Northwood | 10,000 | 18 | Colne | Pinn | Above | |
| Southall-Norwood U.D. | 1 | Southall-Norwood | 35,000 | 42 | Brent | Brent | Below | |
| Staines U.D. | 1 | Staines | 8,000 | 35 | Colne | Ash | Above | |
| Staines R.D. | — | — | — | — | — | — | — | No system of sewerage or sewage disposal within the area. |
| Sunbury U.D. | 1 | Sunbury | 6,500 | 61 | Ash | Soakaway to Subsoil | Above | |
| Teddington U.D. | 1 | Teddington | 24,000 | 17 | Thames (Hampton) | Thames | Below | |
| Twickenham M.B. | 1 | Twickenham | 38,000 | 26 | Crane | Thames | Below | |
| Uxbridge U.D. | 1 | Uxbridge | 14,500 | 22 | Colne | Soakaway to Subsoil | Above | |
| Uxbridge R.D. | 2 | Yiewsley, Cowley, W. Hillingdon | 14,500 | 11 | Colne | Pinn | Above | In addition to two main works, a population of 1,500 is served by temporary works at Northolt. |
| | | Harefield, Ickenham, E. Hillingdon | 5,000 | 35 | Crane | Yeading Brook | Below | |
| Wealdstone U.D. | 1 | Wealdstone, Harrow, Harrow Weald | 36,000 | 31 | Brent | Wealdstone Brook | Below | These works serve a population of 8,500 of Harrow and 2,500 of Harrow Weald. |
| Wembley U.D. | 1 | Wembley | 28,300 | 49 | Brent | Brent | Below | |
| Yiewsley U.D. | — | — | — | — | — | — | — | Yiewsley U.D. is served by the Cowley Works of the Uxbridge Rural and Yiewsley Urban Joint Drainage Committee. |
| Totals | 27 | — | 609,700 | 811 | | | | |

TABLE PREPARED BY J. D. WATSON, ESQ., M.INST.C.E., SHOWING DETAILS OF SEWAGE PURIFICATION WORKS IN THE WESTERN AREA OF MIDDLESEX.

| Disposal Works. | Sewerage System (separate or combined). | Dry Weather Flow (galls. per 24 hours). | | Quantity of Sewage Pumped (galls. of D.W.F. per 24 hours). | Sedimentation Tank Capacity. | | Storm-water Tank Capacity. | | Bacteria Bed Capacity (cubic yards). | | Gallons of Sewage per cubic yard of Medium. | | Area of Land used for Irrigation (acres). | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total. | Per Head. | | Gallons. | Hours of D.W.F. | Gallons. | Hrs. of D.W.F. | Contact Beds. | Percolating Filters. | Contact Beds. | Percolating Filters. | Sewage. | Storm-water. | |
| Brentford ... ... | Partially Separate | 700,000 | 40 | 700,000 | 253,000 | 4·5 | — | — | 5,836 | — | 120 | — | — | — | |
| Chiswick ... ... | Partially Separate | 1,830,000 | 45 | 1,830,000 | 1,116,000 | 14·6 | 424,000 | 5·5 | 17,680 | — | 104 | — | — | — | |
| S. Ealing ... ... | Partially Separate | 2,000,000 | 33 | 200,000 | 750,000 | 9·0 | 2,000,000 | 24·0 | 7,980 | 2,160 | 197 | 197 | — | — | |
| N. Ealing ... ... | Partially Separate | 400,000 | 27 | — | 216,500 | 13·0 | — | — | 6,000 | 2,828 | 17 | 106 | — | 5 | |
| Hanwell ... ... | Partially Separate | 700,000 | 32 | 175,000 | 382,380 | 13·1 | — | — | 6,334 | 6,500 | — | 107 | — | 2 | |
| Greenford ... ... | Separate ... ... | 203,000 | 68 | 200,000 | 127,500 | 15·3 | — | — | — | 1,325<br>1,325 | —<br>— | 150<br>150 | — | — | Two-stage treatment. |
| Feltham ... ... | Separate ... ... | 200,000 | 20 | 200,000 | 165,850 | 20·0 | — | — | — | 4,690 | — | 45 | — | — | In course of construction. |
| Hampton ... ... | Separate ... | 390,000 | 30 | 390,000 | 166,640 | 10·2 | — | — | — | 8,206 | — | 55 | 2 | — | Two-stage treatment. |
| Hayes ... ... ... | Separate ... ... | 500,000 | 25 | 500,000 | 165,191 | 7·9 | 102,600 | 4·9 | — | 4,888 | — | 102 | 4 | 2 | |
| Harrow ... ... | Partially Separate | 473,400 | 35 | 100,000 | 517,000 | 25·4 | — | — | — | — | — | — | 55 | 6 | |
| Hendon ... ... | Partially Separate | 2,800,000 | 31 | 828,000 | 1,870,000 | 13·3 | 585,850 | 5·2 | — | 28,330 | — | 99 | — | — | |
| Pinner ... ... | Separate ... ... | 540,000 | 30 | — | 288,750 | 12·8 | 150,454 | 6·7 | — | 7,605 | — | 70 | — | 8 | |
| Great Stanmore ... | Separate ... ... | 104,000 | 40 | — | 126,094 | 29·0 | — | — | — | — | — | — | 13 | — | |
| Little Stanmore and Edgware ... ... | Separate ... ... | 240,000 | 30 | — | 102,550 | 10·2 | — | — | — | 2,208 | — | 70 | 8 | 3 | |
| Heston and Isleworth | Separate ... ... | 2,000,000 | 33 | 806,000 | 1,800,000 | 21·6 | 146,000 | 1·75 | 20,000 | — | 100 | — | 8 | — | |
| Kingsbury ... ... | Separate ... ... | 250,000 | 40 | 5,000 | 202,050 | 19·4 | 52,060 | 9·2 | — | 3,200 | — | 78 | — | 2 | |
| Ruislip-Northwood ... | Partially Separate | 500,000 | 50 | 200,000 | 304,400 | 14·5 | 202,000 | 9·7 | — | 1,800 | — | 278 | — | — | |
| Southall-Norwood ... | Separate ... ... | 1,910,000 | 54 | 150,000 | 736,560 | 9·2 | — | — | 6,000 | 11,000 | — | 173 | — | — | |
| Staines ... ... | Separate ... ... | 350,000 | 44 | 350,000 | 180,000 | 12·3 | — | — | — | 2,000<br>3,700 | —<br>— | 175<br>95 | — | 6 | Two-stage treatment. |
| Sunbury ... ... | Separate ... ... | 664,000 | 100 | 664,000 | — | — | — | — | — | — | — | — | 52 | — | |
| Teddington ... ... | Separate ... ... | 1,300,000 | 54 | 1,300,000 | 811,000 | 14·8 | — | — | 12,750 | — | 204 | — | — | — | |
| Twickenham ... ... | Separate ... ... | 1,540,000 | 41 | 1,540,000 | 886,000 | 13·8 | 400,000 | 6·2 | 6,222 | 10,558 | 62 | 110 | — | — | |
| Uxbridge ... ... | Partially Separate | 800,000 | 55 | 800,000 | 465,000 | 12·4 | — | — | — | 5,150 | — | 175 | 15 | — | |
| Cowley ... ... | Partially Separate | 750,000 | 52 | 500,000 | 250,687 | 8·0 | 347,560 | 11·1 | — | 1,881<br>4,187 | —<br>— | 398<br>179 | — | 1 | Two-stage treatment. |
| S. Ickenham ... ... | Separate ... ... | 150,000 | 30 | 150,000 | 100,800 | 16·0 | 100,800 | 16·0 | — | 5,148 | — | 29 | — | — | In course of construction. |
| Wealdstone ... ... | Partially Separate | 1,215,000 | 34 | 54,000 | 571,000 | 11·3 | 429,000 | 8·5 | — | 15,798 | — | 77 | — | — | |
| Wembley ... ... | Partially Separate | 1,245,000 | 44 | 1,245,000 | 545,000 | 10·5 | 100,000 | 1·9 | — | 9,730 | — | 128 | 12 | 3 | |
| Totals ... ... ... | | 23,754,400 | 39 | 12,887,000 | | | | | | | | | | | |

## House Refuse.

As will be seen by reference to the table below, the collection of domestic refuse throughout the County is made at satisfactorily frequent intervals. Except in one or two outlying rural parishes, refuse is collected from houses at least once weekly. Frequent collection of putrescible matter is very necessary, particularly in hot weather, if nuisance from smell, flies, rats and other pests is to be avoided.

With regard to refuse disposal, in my last survey report, that for the year 1925, this subject was dealt with in considerable detail. Since that year, there is evidence that the methods employed by local authorities in the County for disposing of domestic refuse produced in their own districts have somewhat improved. Thus in several districts disposal of refuse by indiscriminate tipping has ceased and " controlled tipping " or incineration has been adopted.

## House Refuse.

| | How frequently removed from each House. | Collected by Council or Contractor. | Method of Disposal. | | |
|---|---|---|---|---|---|
| | | | By Destructor. | By Tipping. | Other Methods. |
| *Urban.* | | | | | |
| Acton (*Borough*) .. | Weekly .. | Council .. | Yes .. .. | — | — |
| Brentford & Chiswick | ,, (*a*) | ,, .. | ,, .. .. | — | — |
| Ealing (*Borough*) .. | ,, .. | ,, .. | ,, .. .. | — | — |
| Edmonton .. .. | ,, .. | ,, .. | — | Yes .. .. | — |
| Enfield .. .. | ,, .. | ,, .. | — | ,, .. .. | — |
| Feltham .. .. | Weekly and fortnightly(*b*) | Council and Contractors(*b*) | — | ,, .. .. | — |
| Finchley .. .. | Weekly .. | Contractor .. | Yes .. | — | — |
| Friern Barnet .. | Weekly(*c*) .. | Council .. | — | Yes (controlled) | — |
| Hampton .. .. | ,, .. | ,, .. | Yes .. .. | — | — |
| Hampton Wick .. | ,, .. | ,, .. | — | Yes .. .. | — |
| Harrow .. .. | ,, (*d*) | ,, .. | —(*d*) | Yes (controlled) | — |
| Hayes & Harlington | ,, .. | ,, .. | — | Yes (controlled) | — |
| Hendon .. .. | ,, .. | ,, (*e*) .. | Yes .. .. | — | — |
| Heston & Isleworth | ,, .. | ,, .. | — | Yes .. .. | — |
| Hornsey (*Borough*) | ,, (*f*) .. | ,, .. | Yes .. .. | — | — |
| Kingsbury .. .. | ,, | Contractor .. | — | — | Removed out of district. |
| Ruislip-Northwood .. | ,, .. | Council .. | — | Yes(*g*) .. | — |
| Southall-Norwood .. | ,, .. | ,, .. | — | ,, (*h*) .. | — |
| Southgate .. .. | ,, .. | ,, .. | Yes .. .. | — | — |
| Staines .. .. | ,, .. | ,, .. | — | Yes .. .. | — |
| Sunbury .. .. | ,, (*i*) .. | Council and Contractor(*i*) | Yes .. .. | — | — |
| Teddington .. .. | Daily .. | Council .. | — | Yes .. .. | Burned. |
| Tottenham .. .. | Weekly .. | ,, .. | Yes .. .. | — | — |
| Twickenham (*Borough*) | ,, (*j*) .. | ,, .. | ,, .. .. | — | — |
| Uxbridge .. .. | ,, .. | ,, .. | — | Yes .. .. | — |
| Wealdstone .. .. | ,, .. | ,, .. | Yes .. .. | — | — |
| Wembley .. .. | ,, .. | ,, .. | — | Yes(*k*) .. | — |
| Willesden .. .. | ,, .. | ,, .. | — | ,, (*l*) .. | — |
| Wood Green .. | ,, .. | ,, .. | Yes .. .. | — | — |
| Yiewsley & West Drayton | ,, .. | ,, .. | — | Yes (controlled) | — |
| *Rural.* | Harmondsworth—fortnightly | Harmondsworth—Contractor | | | |
| Hendon .. .. | Weekly .. | Contractor .. | — | Yes .. .. | — |
| South Mimms .. | Fortnightly or by arrangement | —(*m*) | — | Yes .. .. | — |

For Notes see p. 21.

(*a*) *Brentford and Chiswick.*—Twice weekly in the case of certain mansion flats.

(*b*) *Feltham.*—Feltham ward—removed weekly by Council. Bedfont and Hanworth wards—removed fortnightly by contractors.

(*c*) *Friern Barnet.*—Trade refuse from shops removed twice weekly.

(*d*) *Harrow.*—Weekly, except in special cases. The Council propose, subject to the approval of the Ministry of Health, to build a destructor and dispose of the refuse by direct incineration.

(*e*) *Hendon (Urban).*—With exception of Mill Hill area (approximately 3,000 houses). The latter is done by contract.

(*f*) *Hornsey.*—Bi-weekly from flats.

(*g*) *Ruislip-Northwood.*—Council intend to commence controlled tipping at their destructor site at Eastcote.

(*h*) *Southall-Norwood.*—Scheme before Ministry of Health for a separation and incinerator plant, sufficient for needs of district until 1945.

(*i*) *Sunbury.*—Refuse removed at Littleton once every two weeks. Collection in districts of Charlton, Sunbury, Sunbury Common and Upper Halliford carried out by district council; in districts of Ashford Common, Littleton and Shepperton collection carried out by contractors.

(*j*) *Twickenham.*—Except in cases of block flats, when refuse is collected daily.

(*k*) *Wembley.*—Refuse is removed from district by barge to West Drayton, where it is disposed of by tipping and covering with earth.

(*l*) *Willesden.*—Tipping and barging.

(*m*) *South Mimms (Rural).*—Voluntary scheme carried on by the Ratepayers' Association, pending a proper scheme being put into operation by the Council, which scheme is now being prepared.

In certain of the western districts of the County, which are served by the Grand Junction Canal, a traffic in refuse has existed for a great number of years, trade and household rubbish from London boroughs and some of the populous districts of Middlesex being imported by barges and deposited in huge dumps. To such an extent has this practice been carried on that in course of years the tips have grown to such a size as completely to change the configuration of the landscape in some places. In the present state of legislation there exists no effective legal method of putting a stop to this practice, but nuisance can be reduced to a minimum, or made non-existent, by the adoption of bye-laws (as has been done by the Urban District of Yiewsley and West Drayton), and by appointing, if necessary, additional sanitary inspectors to ensure that the bye-laws are strictly enforced.

## Housing.

In the table on page 24 is set out information regarding the number of new houses which have been erected in each of the sanitary districts of the County in each of the five years forming the quinquennium under review. The table is illuminating in that it reveals a further aspect of the extraordinary growth and development of Middlesex during the past five years. During this period no fewer than 84,329 new houses have been erected within the County. After making due allowance for a limited number of old houses which may have been demolished and assuming that each of the new houses is occupied by four persons (probably a conservative estimate) it will be seen that the efforts of the builder in this County have provided in five years for the accommodation of over 300,000 persons. This may be expressed in another way by stating that in five years the County of Middlesex, without enlarging its borders, has added to itself the equivalent of a town of the order of Bradford or Newcastle-on-Tyne. The County Council has assisted in this development by advancing during the five years ended in March, 1931, the sum of £3,158,430 as loans in connection with the erection of 4,229 houses under powers afforded by the Housing Acts and Small Dwellings Acquisition Acts.

The table on pages 22 and 23 gives particulars regarding the activities of each sanitary authority in the County with regard to the inspection of dwelling-houses and action necessary for the remedying of defects found.

| — | Acton (Borough). | Brentford and Chiswick. | Ealing (Borough). | Edmonton. | Enfield. | Feltham. | Finchley. | Friern Barnet. | Hampton. | Hampton Wick. | Harrow. | Hayes and Harlington. | Hendon (Urban). | Heston and Isleworth. | Hornsey (Borough). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. *Unfit Dwelling Houses :—* | | | | | | | | | | | | | | | |
| Inspection :— | | | | | | | | | | | | | | | |
| (1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) .... .... .... .... | 5,450 | 7,224 | 8,756 | 6,935 | 11,119 | 1,111 | 5,901 | 1,914 | 2,328 | 480 | 2,286 | 2,509 | 5,704 | 3,619 | 7,212 |
| (2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910, or the Housing Consolidated Regulations, 1925 .... .... .... | 3,306 | 4,981 | 3,043 | 710 | 1,023 | 395 | 2,135 | 351 | 674 | 295 | 694 | 220 | 536 | 454 | 1,677 |
| (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .... .... | Nil | 2 | 43 | 29 | Nil | 41 | 8 | 14 | 7 | 2 | 16 | 32 | 14 | 56 | 27 |
| (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation .... | 4,277 | 5,909 | 5,556 | 5,398 | 5,748 | 610 | 4,448 | 849 | 533 | 145 | 1,642 | 721 | 2,881 | 1,874 | 4,795 |
| 2. *Remedy of Defects without Service of Formal Notices :—* | | | | | | | | | | | | | | | |
| Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers .... | 2,904 | 4,743 | 5,250 | 3,989 | 4,174 | 320 | 3,776 | 798 | 420 | 142 | 1,474 | 683 | 2,541 | 1,650 | 4,669 |
| 3. *Action under Statutory Powers :—* | | | | | | | | | | | | | | | |
| A.—Proceedings under Section 3 of the Housing Act, 1925 :— | | | | | | | | | | | | | | | |
| (1) Number of dwelling-houses in respect of which notices were served requiring repairs .... | 1,023 | 1,001 | 4 | 771 | Nil | Nil | 41 | 182 | 30 | 1 | 12 | 48 | 29 | 105 | Nil |
| (2) Number of dwelling-houses which were rendered fit after service of formal notices :— | | | | | | | | | | | | | | | |
| (*a*) By owners .... .... .... | 1,022 | 1,002 | Nil | 717 | Nil | Nil | 17 | 109 | 27 | 1 | 8 | 31 | 28 | 43 | Nil |
| (*b*) By Local Authority in default of owners .... .... .... ... | 1 | Nil | Nil | 42 | Nil | Nil | 6 | 11 | 3 | Nil | Nil | 1 | Nil | 32 | Nil |
| (3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close .... .... .... | Nil | 2 | 4 | 3 | Nil | Nil | Nil | Nil | 2 | Nil | 10 | 12 | Nil | Nil | 1 |
| B.—Proceedings under Public Health Acts :— | | | | | | | | | | | | | | | |
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied .... .... .... .... | 1,377 | 389 | 501 | 285 | 699 | 194 | 92 | 361 | 1 | 4 | 225 | 757 | 261 | 132 | 435 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices :— | | | | | | | | | | | | | | | |
| (*a*) By owners .... .... .... | 1,377 | 389 | 507 | 211 | 617 | 187 | 70 | 165 | 1 | 4 | 193 | 53 | 245 | 96 | 315 |
| (*b*) By Local Authority in default of owners .... .... .... .... | Nil | Nil | 3 | 21 | 1 | Nil | 13 | 6 | Nil | Nil | Nil | 1 | 1 | 9 | Nil |
| C.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925 :— | | | | | | | | | | | | | | | |
| (1) Number of representations made with a view to the making of of Closing Orders.... .... .... | Nil | 4 | 48 | 12 | Nil | 9 | 4 | 17 | 2 | Nil | 14 | 29 | 14 | 55 | 1 |
| (2) Number of dwelling-houses in respect of which Closing Orders were made .... .... .... | Nil | 4 | 48 | 12 | Nil | 9 | 4 | 13 | 2 | Nil | 13 | 28 | 16 | 54 | Nil |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit | Nil | Nil | Nil | 2 | Nil | 3 | 1 | 4 | Nil | Nil | 2 | 9 | Nil | 2 | Nil |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made .... .... | Nil | Nil | 48 | 9 | Nil | 1 | Nil | 7 | Nil | Ni | 4 | 4 | 8 | 49 | 7 |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders .... .... | Nil | Nil | 24 | 4 | Nil | 1 | Nil | 3 | Nil | Nil | 4 | 2 | 10 | 8 | 4 |

usive).

| | Southall-Norwood. | Southgate. | Staines (Urban). | Sunbury. | Teddington. | Tottenham. | Twickenham (Borough). | Uxbridge (Urban). | Wealdstone. | Wembley. | Willesden. | Wood Green. | Yiewsley. | Hendon (Rural). | South Mimms (Rural). | Staines (Rural).† | Uxbridge (Rural).* | Totals for Administrative County. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 3,767 | 2,796 | 241 | 1,600 | 3,496 | 19,519 | 3,019 | 822 | 3,926 | 3,626 | 18,077 | 6,021 | 1,047 | 2,354 | 96 | 1,550 | 410 | 146,137 |
| 4 | 1,249 | 1,631 | 62 | 312 | 1,112 | 6,137 | 396 | 404 | 879 | 562 | 6,417 | 2,211 | 340 | 1,323 | Nil | 305 | 167 | 44,156 |
| 0 | 66 | Nil | 58 | 3 | 8 | 12 | 61 | 39 | 1 | 6 | 6 | 8 | 21 | 61 | Nil | 293 | 18 | 963 |
| 0 | 2,273 | 1,907 | 124 | 952 | 2,399 | 11,775 | 383 | 182 | 2,741 | 1,318 | 449 | 873 | 325 | 809 | Nil | 226 | 85 | 72,351 |
| 3 | 2,013 | 1,802 | 126 | 829 | 2,011 | 10,041 | 2,471 | 99 | 2,663 | 1,995 | 12,577 | 2,980 | 270 | 698 | 47 | 839 | 28 | 79,166 |
| 8 | 199 | Nil | 10 | 54 | 100 | 1,294 | 107 | 117 | 57 | 60 | 413 | 182 | 27 | 32 | 1 | 26 | 30 | 6,019 |
| | 150 | Nil | 10 | 43 | 54 | 1,140 | 100 | 94 | 54 | 43 | 361 | 98 | 25 | 25 | 1 | 1 | 24 | 5,273 |
| | Nil | Nil | Nil | Nil | Nil | 135 | Nil | Nil | 2 | 7 | 30 | 52 | Nil | Nil | Nil | 7 | Nil | 329 |
| 2 | Nil | Nil | Nil | 1 | Nil | 2 | Nil | 9 | Nil | Nil | Nil | Nil | Nil | 2 | Nil | 15 | Nil | 75 |
| 3 | 567 | 140 | 124 | 78 | 77 | 356 | 433 | 596 | 67 | 144 | 530 | 437 | 12 | 56 | 27 | 543 | 33 | 10,194 |
| 3 | 482 | 131 | 37 | 66 | 74 | 345 | 443 | 587 | 52 | 132 | 430 | 416 | 11 | 54 | 27 | 290 | 32 | 8,300 |
| | 11 | 5 | Nil | Nil | Nil | 19 | 2 | Nil | 6 | 18 | 37 | 8 | Nil | Nil | Nil | 2 | Nil | 163 |
| 0 | 25 | 1 | 3 | 1 | 8 | 12 | 56 | 34 | Nil | 5 | 6 | 8 | 14 | 59 | Nil | 36 | 12 | 502 |
| 0 | 25 | 1 | 3 | 1 | 8 | 12 | 49 | 40 | Nil | 5 | 6 | 7 | 11 | 50 | Nil | 30 | 15 | 477 |
| 2 | 1 | Nil | Nil | Nil | 2 | 11 | 3 | 10 | Nil | 1 | 2 | 4 | 8 | 11 | Nil | 5 | 4 | 87 |
| | Nil | Nil | Nil | Nil | Nil | 37 | 28 | 10 | Nil | Nil | 14 | 1 | 4 | 20 | Nil | 11 | 4 | 280 |
| 0 | Nil | Nil | Nil | Nil | Nil | 14 | 8 | 22 | Nil | Nil | 7 | 1 | Nil | 11 | Nil | 6 | Nil | 138 |

* Abolished 1st April, 1929.

† Abolished 1st April, 1930.

## Number of New Houses Erected.

| | (*a*) Total (including numbers given separately under (*b*)). | | | | | | (*b*) With State assistance under the Housing Acts :— | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | (i) By the Local Authority. | | | | | | (ii) By other persons or bodies. | | | | | |
| | 1926. | 1927. | 1928. | 1929. | 1930. | Total. | 1926. | 1927. | 1928. | 1929. | 1930. | Total. | 1926. | 1927. | 1928. | 1929. | 1930. | Total. |
| *Urban*— | | | | | | | | | | | | | | | | | | |
| Acton (Borough) ... ... | 431 | 309 | 196 | 501 | 514 | 1,951 | Nil | Nil | Nil | Nil | 12 | 12 | 181 | Nil | 52 | 124 | Nil | 357 |
| Brentford and Chiswick ... | 305 | 448 | 355 | 249 | 159 | 1,516 | Nil | 145 | 37 | 108 | 41 | 331 | 217 | Nil | Nil | Nil | Nil | 217 |
| Ealing (Borough)... ... | 819 | 904 | 1,027 | 1,345 | 1,479 | 5,574 | 100 | 414 | 128 | 204 | Nil | 846 | 293 | 381 | 186 | 673 | 1,479 | 3,012 |
| Edmonton ... ... | 419 | 684 | 676 | 587 | 610 | 2,976 | 98 | 234 | 186 | 164 | 138 | 820 | 21 | 31 | 24 | 351 | Nil | 427 |
| Enfield ... ... ... | 542 | 345 | 258 | 646 | 424 | 2,215 | 276 | 184 | 166 | 322 | Nil | 948 | 44 | 30 | 34 | 1 | 424 | 533 |
| Feltham ... ... ... | 26 | 26 | 89 | 188 | 188 | 517 | Nil | Nil | 58 | 152 | 152 | 362 | Nil | Nil | 2 | 36 | 36 | 74 |
| Finchley ... ... ... | 436 | 383 | 415 | 381 | 476 | 2,091 | Nil | Nil | 54 | Nil | Nil | 54 | Nil | Nil | Nil | Nil | Nil | Nil |
| Friern Barnet ... ... | 266 | 222 | 138 | 130 | 135 | 891 | 78 | 80 | 28 | 10 | Nil | 196 | Nil | Nil | Nil | 20 | Nil | 20 |
| Hampton ... ... ... | 116 | 247 | 157 | 211 | Nil | 731 | 49 | 60 | 8 | 91 | Nil | 208 | 3 | Nil | Nil | Nil | Nil | 3 |
| Hampton Wick ... ... | 20 | 2 | 4 | 9 | 4 | 39 | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil |
| Harrow ... ... ... | 159 | 274 | 225 | 343 | 210 | 1,211 | Nil | Nil | 149 | 101 | Nil | 250 | Nil | Nil | Nil | Nil | Nil | Nil |
| Hayes and Harlington ... | 210 | 423 | 330 | 1,056 | 577 | 2,596 | Nil | 212 | 60 | 140 | Nil | 412 | 176 | 199 | 169 | 559 | Nil | 1,103 |
| Hendon ... ... ... | 1,205 | 3,287 | 3,715 | 1,615 | 1,380 | 11,202 | Nil | Nil | 22 | 226 | 50 | 298 | Nil | 2,092 | 2,519 | 140 | 1,330 | 6,081 |
| Heston and Isleworth ... | 1,068 | 1,071 | 1,313 | 1,551 | 1,734 | 6,737 | Nil | 16 | Nil | 181 | 126 | 323 | 767 | 103 | Nil | Nil | Nil | 870 |
| Hornsey (Borough) ... | 463 | 284 | 103 | 73 | 94 | 1,017 | 189 | 110 | Nil | Nil | Nil | 299 | 274 | 174 | Nil | 73 | Nil | 521 |
| Kingsbury ... ... | 178 | 455 | 588 | 768 | 1,419 | 3,408 | Nil | 34 | 25 | Nil | Nil | 59 | 50 | 103 | 116 | Nil | Nil | 269 |
| Ruislip-Northwood ... | 211 | 220 | 168 | 226 | 428 | 1,253 | 48 | 20 | Nil | 30 | 12 | 110 | 20 | 46 | 7 | 3 | Nil | 76 |
| Southall-Norwood ... | 231 | 419 | 345 | 362 | 430 | 1,787 | 28 | 54 | 104 | 58 | 165 | 409 | 158 | 196 | Nil | Nil | Nil | 354 |
| Southgate ... ... ... | 613 | 631 | 622 | 617 | 641 | 3,124 | 67 | 78 | 87 | 114 | 42 | 388 | 23 | 62 | Nil | Nil | Nil | 85 |
| Staines ... ... ... | 60 | 48 | 36 | 63 | 346 | 553 | 32 | 20 | Nil | Nil | 52 | 104 | 28 | 28 | Nil | Nil | 294 | 350 |
| Sunbury ... ... ... | 102 | 69 | 44 | 68 | 136 | 419 | 50 | 38 | 7 | 32 | 44 | 171 | Nil | Nil | Nil | Nil | Nil | Nil |
| Teddington ... ... | 124 | 109 | 106 | 82 | 160 | 581 | Nil | Nil | Nil | Nil | Nil | Nil | 3 | Nil | Nil | Nil | Nil | 3 |
| Tottenham ... ... | 486 | 946 | 647 | 419 | 434 | 2,932 | 64 | 248 | 110 | Nil | Nil | 422 | 132 | 290 | Nil | Nil | Nil | 422 |
| Twickenham (Borough) ... | 171 | 192 | 234 | 344 | 490 | 1,431 | 30 | 54 | 64 | 24 | 193 | 365 | 8 | 11 | 1 | 4 | Nil | 24 |
| Uxbridge ... ... ... | 52 | 80 | 89 | 362 | 725 | 1,308 | Nil | 63 | 58 | 42 | Nil | 163 | 27 | 17 | Nil | Nil | Nil | 44 |
| Wealdstone ... ... | 919 | 586 | 343 | 1,679 | 883 | 4,410 | 131 | 129 | Nil | 169 | Nil | 429 | Nil | Nil | Nil | Nil | Nil | Nil |
| Wembley ... ... ... | 758 | 1,081 | 1,012 | 1,003 | 1,350 | 5,204 | 50 | 100 | 76 | Nil | Nil | 226 | 13 | 95 | 25 | 29 | Nil | 162 |
| Willesden ... ... ... | 713 | 984 | 1,100 | 1,360 | 936 | 5,093 | 129 | 263 | 27 | 297 | Nil | 716 | 122 | 310 | 400 | 340 | Nil | 1,172 |
| Wood Green ... ... | 186 | 305 | 208 | 201 | 137 | 1,037 | 36 | 124 | 30 | Nil | Nil | 190 | 15 | 20 | Nil | 18 | Nil | 53 |
| Yiewsley and West Drayton ... ... ... | 54 | 75 | Nil | 258 | 300 | 687 | 52 | 73 | Nil | 246 | Nil | 371 | Nil | 2 | Nil | 12 | Nil | 14 |
| *Rural*— | | | | | | | | | | | | | | | | | | |
| Hendon ... ... ... | 947 | 848 | 1,042 | 1,542 | 2,215 | 6,594 | 12 | 146 | Nil | 40 | 5 | 203 | Nil | 702 | 1,042 | 1,502 | Nil | 3,246 |
| South Mimms ... ... | 63 | 90 | 45 | 94 | 246 | 538 | Nil | 48 | 18 | 20 | 120 | 206 | 30 | 42 | 27 | 74 | Nil | 173 |
| †Staines ... ... ... | 123 | 228 | 360 | 506 | — | 1,217 | Nil | 52 | 96 | 56 | — | 204 | 94 | 124 | 126 | 240 | — | 584 |
| *Uxbridge ... ... ... | 306 | 882 | 301 | — | — | 1,489 | Nil | 246 | 88 | — | — | 334 | 150 | 482 | Nil | — | — | 632 |
| Totals for Administrative County ... ... ... | 12,782 | 17,157 | 16,291 | 18,839 | 19,260 | 84,329 | 1,519 | 3,245 | 1,686 | 2,827 | 1,152 | 10,429 | 2,849 | 5,540 | 4,730 | 4,199 | 3,563 | 20,881 |

## Inspection and Supervision of Food.

Legislation dealing with the control of food supplies, which is administered by the County Council, relates to (*a*) certain powers and duties connected with the production of milk and (*b*) adulteration of food.

### Milk Production.

(1) *The Milk and Dairies (Consolidation) Act*, 1915.—The powers and duties entrusted to County Councils by this Act largely relate to the detection and suppression of tuberculous milk.

The operation of the Act was postponed until 1925, but since that year the County Council has adopted a policy of taking a limited number of samples, six per week, from retail milk establishments throughout the County, and causing them to be examined for the presence of tubercle bacilli. The examination is carried out at the Lister Institute of Preventive Medicine by the method of animal inoculation. This method, although suffering from the drawbacks of being slow and somewhat expensive, is by far the most certain and trustworthy method of detecting the presence of tubercle bacilli. The object of the sampling is twofold; firstly, in order that information may be available as to the extent to which the milk supplied to consumers in the Administrative County is infected with living and virulent tubercle bacilli, and secondly, so that such action as may be possible may be taken to detect and deal with the infection at its source.

In the course of the year, 292 samples of milk from retail dealers and, in a few instances, from Middlesex producers, were examined for the presence of tubercle bacilli. In 20 instances the investigation could not be completed, owing to the premature death from some intercurrent infection of the guinea-pigs inoculated or for some other accidental cause. In the 272 cases in which the investigation was carried to a conclusion, tuberculosis was set up in the inoculated guinea-pigs in 22 instances, clearly demonstrating the presence of living and virulent tubercle bacilli in 8·1 per cent. of the samples of milk examined.

With regard to action taken in an endeavour to determine the origin of the infection, it was found possible to trace the infection back to the diseased animals in 12 cases, and, in all, 19 cows on the farms concerned were found to be suffering from tuberculosis within the terms of the Tuberculosis Order and were slaughtered. Three of the samples successfully traced had been derived from Middlesex farms (5 cows) and 8 from farms situated in other counties (12 cows), whilst in one instance the sample had been taken from a mixed supply from a Middlesex and a Surrey farm, on each of which an infected cow was found. In addition to the 12 cases above referred to, in one further instance the infected cow was detected independently in the course of his routine duties by Mr. Villar, the County Council's Veterinary Inspector under the Milk and Dairies Order, 1926, and likewise was slaughtered. In the remaining 9 instances the source of infection remained undiscovered; in 6 of these the milk had been produced outside the County.

In Willesden the Urban District Council for some years past have carried out systematic sampling of milk retailed in that district and have caused it to be examined for the presence of tubercle bacilli. In order to avoid duplication of effort, therefore, the County Council's inspectors do not take samples of milk for this purpose in Willesden. I am informed by the Medical Officer of Health of Willesden that in the course of the year 49 samples of milk from Willesden retailers were examined for the presence of tubercle bacilli. Three samples of milk, all produced outside Middlesex, were found to contain tubercle bacilli and in two instances infected cows were traced and dealt with under the Tuberculosis Order.

(2) *The Milk and Dairies Order*, 1926.—This Order, made under the Milk and Dairies (Consolidation) Act by the Minister of Health with the concurrence of the Minister of Agriculture, gave power to county councils to undertake the routine veterinary inspection of dairy cattle. The County Council decided to take advantage of this power and appointed, as whole-time veterinary inspector under the order, Mr. Sidney Villar, F.R.C.V.S., who commenced duty on January 1st, 1929. Mr. Villar has now completed two years of this work, and the results he has attained have been eminently satisfactory.

In each of the two years during which the scheme has been in operation the standard aimed at has been the quarterly inspection of all dairy herds in the County, and practically every farm has, in fact, been visited four times in the course of each year. In addition to these quarterly routine visits a large number of special visits to farms has been necessitated in order to follow up unsatisfactory conditions noted at previous routine inspections. Mr. Villar's report for 1930 is as follows :—

> The number of registered cowkeepers' premises periodically visited is 233 and the number of cows kept thereon is approximately 4,896. Allowing for the annual replacement of 25 per cent. of dairy cattle caused by the sale of fat cows, wastage, &c., about 6,000 animals have been examined during the year.
>
> In the course of these examinations 55 cows and one bull affected with tuberculosis have been discovered.
>
> In 17 of these cows, living tubercle bacilli were found in samples of their milk taken at the time of their inspection, and in addition, nine other cows were reported as having tuberculosis of the udder on post-mortem examination.
>
> With reference to the 17 cows reported to be yielding tubercle bacilli in their milk, these were, for the most part, cases where manipulation of the udder alone raised suspicion of the existence of tuberculosis and such suspicion was confirmed by a microscopic examination of a sample of milk taken from the abnormal quarter of the udder.
>
> In other cases where clinical evidence of the existence of tuberculosis in the respiratory organs or of general tuberculosis was found no sample of milk was taken for examination even if the udder appeared to be involved.

Microscopical examination of samples of milk is perhaps of greatest use in assisting the differentiation between the slight hypertrophy and induration of a quarter caused by the presence of tubercle at an early stage of the disease and similar conditions of a quarter arising from increased functional activity compared with its companion, but less actively secreting quarter of the udder.

Information regarding the nine cases of tuberculosis of the udder mentioned above is obtained from the reports of the local part-time veterinary inspectors who made the post-mortem examinations. The same local veterinary inspectors made post-mortem examinations of the 17 cows in whose milk tubercle bacilli had been found to exist. In 13 of these cows tuberculosis of the udder was reported. In the remaining four cows no mention of the state of the udder was made.

The quantity yielded daily by some of the cows showing tubercle bacilli in their milk is considerable. In one case the cow was stated to be yielding 22 quarts of milk a day, in another case the cow was yielding 18 quarts a day and this was being retailed, amongst other purchasers, to a well-known boarding school. In several cases the cows were said to be yielding 14 quarts a day, whilst in the case of one cow giving 12 quarts daily, the milk was sold on the premises, for the most part to customers of the working class, who fetched their supply in jugs, the premises being in a densely populated district.

It is alarming that cows will yield such large quantities of tubercle infected milk for many weeks or even months without showing marked evidence of general illness or alteration in the appearance of their udders.

Very few dairy cows are reared in Middlesex and the farmer relies for the most part on cows purchased outside the County. It is of interest that in four consecutive cases the diseased cows had been brought into the County within a fortnight of my finding them diseased; in two of these cases the udders were affected with tuberculosis yet the farmers had bought them as healthy animals.

Notices to discontinue the sale of milk or dairy products of diseased animals have been served on the owners of 22 cows suffering from abscess in their udders and 40 cows with acute mastitis, "cow pox" and other septic conditions.

Two hundred and seventy-two cows were found to be affected with localized mastitis or udder disease of a less serious nature; in each case notices were served, the owners written to or personally warned not to sell the affected milk.

On two farms mastitis of a contagious character was found; adequate steps were taken and the disease quickly got under control.

Two cows were found to be suffering from actinomycosis; in neither case was the udder involved.

Seven animals were noted as being affected with Johne's disease; in each case slaughter of the animal was suggested to the owner.

The occurrence of a case of undulant fever in man led to the inspection of the dairy herd supplying the household with milk. So far as the investigation was carried out, the cows on these premises did not appear to be the source of infection.

During the year a considerable improvement in the quality of the cows kept by many farmers is noticeable—old animals have been replaced by younger and many owners have ceased breeding from cows with defective udders.

Owing to the plentiful supply of hay and other feeding stuffs, the bodily condition of the cows generally is better than a year ago, but it is to be regretted that in the matter of cleanliness of the cows, cowsheds and attendants very little or no improvement is generally to be found.

From consideration of Mr. Villar's report it will be seen that 56 bovine animals were discovered by him to be exhibiting signs or symptoms indicating the presence of tuberculosis in one of its forms.

Information regarding Mr. Villar's findings was communicated to the County Council's inspectors under the Diseases of Animals Acts, and the following is a summary of the action taken :—

3 were deemed not to be suffering from tuberculosis;

2 were considered to be tuberculous but not to such a degree as to bring them within the terms of the Tuberculosis Order of the Ministry of Agriculture;

51 were found to be suffering from tuberculosis as defined by the Order and were slaughtered under the instructions of the County Council.

One result of Mr. Villar's work during 1930 has been, therefore, the removal of 51 tuberculous animals from Middlesex dairy herds. The corresponding number of tuberculous cows slaughtered as a result of his activities during 1929 was 68. In addition, the discovery by him of 343 cases of acute or chronic inflammation of the udder and other diseased conditions in 1930 (and 404 cases of similar conditions in 1929), and the steps taken by him to restrict the supply of milk yielded by such animals, must have had a very appreciable beneficial effect upon the milk supply of the County.

(3) *The Milk (Special Designations) Order*, 1923.—Five licences for the production of "Certified" milk have been granted by the Ministry of Health to Middlesex milk producers during 1930. The farms which are licensed are situated in the Urban Districts of Enfield, Finchley, Ruislip-Northwood and Wembley, and the Rural District of Hendon. No producer in the County held a licence during the year to sell "Grade A (Tuberculin Tested)" milk.

Three milk producers were licensed by the County Council for the production of Grade A milk, the farms being situated in the Urban District of Hendon, the Rural District of Hendon and the Urban District of Finchley. The producer in the last-named district, who had been the holder of a licence to produce Grade A milk for a number of years, decided in May, 1930 to remove his Grade A herd to another farm in Hertfordshire, already licensed by the Council of that County for the production of Grade A milk.

(4) *The Tuberculosis Order*, 1925.—This Order of the Minister of Agriculture is administered by the Diseases of Animals Sub-Committee of the County Council. To carry out the Order the County Council employs a number of part-time veterinary surgeons who, on receipt of information that the presence of tuberculosis affecting a bovine animal is suspected on a farm, visit the premises, examine

the animal and, if it is found so to be suffering within the meaning of the Tuberculosis Order, arrange for its slaughter. Information regarding the presence of tuberculosis or suspected tuberculosis reaches these officers in one of three ways :—

(1) As a result of the routine examination of the herds in the County by Mr. Villar, the Council's whole-time veterinary surgeon, employed under the Milk and Dairies Order, 1926 ; this accounts for the bulk of the information received.

(2) From a report from an owner of a cow that he suspects an animal in his possession to be tuberculous.

(3) As a result of bacteriological examination of samples of milk taken from producers or retailers under the procedure already described on page 25.

From information with which I have been supplied by the Clerk of the County Council it appears that, during 1930, visits were made by the Council's part-time veterinary officers to 89 premises on which the presence of bovine tuberculosis had been reported or suspected and 811 animals were examined thereon. Of this number 87 were found to be suffering from tuberculosis as defined by the Order, and 86 of them were slaughtered. In the case of the diseased animal which was not slaughtered, the owner lodged an objection under Article 5 (1) of the Order which was upheld by the Ministry of Agriculture.

The compensation paid by the County Council to the owners of slaughtered cows during the year amounted to £817.

(5) *Education in Clean Milk Production.*—The Middlesex Education Committee have continued their policy of instructing farmers in the County in the methods to be employed in the production of clean milk. Mr. E. Rea, the County Council's Agricultural Organiser, has devoted much time to this end and in the course of numerous visits to farms, has given advice and practical assistance to milk producers.

A Clean Milk Competition was held in 1930.

## Adulteration.

The various acts and regulations dealing with sophistication of food are administered by the Public Control Department of the County Council and for the following information I am indebted to Mr. R. A. Robinson, Barrister-at-Law, Chief Officer of the Public Control Department.

In the following table are set out particulars of samples under the Food and Drugs (Adulteration) Act, 1928, submitted to the County Analyst by officers of the Public Control Department during 1930 :—

| | Number of Samples Examined. | Number of Samples Adulterated or not up to Standard. |
|---|---|---|
| Almonds, Ground .. .. .. | 1 | — |
| Apples .. .. .. .. | 4 | — |
| Arrowroot .. .. .. .. | 4 | — |
| Aspirin Tablets .. .. .. | 3 | — |
| *Bloater Paste .. .. .. | 1 | — |
| Brandy .. .. .. .. | 3 | — |
| *Butter .. .. .. .. | 71 | 1 |
| *Cherry Brandy .. .. .. | 1 | — |
| Chocolate .. .. .. .. | 3 | — |
| Cocoa .. .. .. .. | 2 | — |
| Coffee .. .. .. .. | 3 | — |
| *Cream .. .. .. .. | 10 | 1 |
| Custard Powder .. .. .. | 2 | — |
| *Dripping .. .. .. .. | 2 | — |
| *Fruit Cordial .. .. .. | 2 | — |
| Gin .. .. .. .. .. | 54 | 15 |
| *Ginger .. .. .. .. | 2 | — |
| *Ginger Wine .. .. .. | 2 | — |
| *Horse-radish Cream .. .. | 1 | — |
| Icing Sugar .. .. .. .. | 8 | — |
| *Jam .. .. .. .. .. | 3 | — |
| *Lemon Squash .. .. .. | 5 | — |

* See next page.

| | Number of Samples Examined. | Number of Samples Adulterated or not up to Standard. |
|---|---|---|
| *Margarine .. .. .. .. | 2 | — |
| *Marmalade .. .. .. .. | 1 | — |
| *Meat .. .. .. .. .. | 28 | 8 |
| *Meat Paste .. .. .. .. | 1 | — |
| *Minced Beef .. .. .. | 6 | 2 |
| *Milk .. .. .. .. .. | 1,082 | 57 |
| *Milk, Separated .. .. .. | 1 | — |
| *Milk, Sterilized .. .. .. | 19 | — |
| *Milk, Condensed Skimmed .. | 4 | 2 |
| Mustard .. .. .. .. | 2 | — |
| Olive Oil .. .. .. .. | 1 | — |
| *Orange Wine .. .. .. | 3 | — |
| *Pastry .. .. .. .. | 2 | — |
| *Peas (Tinned) .. .. .. | 5 | 2 |
| Pepper .. .. .. .. | 5 | — |
| *Preservative .. .. .. .. | 2 | — |
| *Prunes .. .. .. .. | 1 | — |
| Rennet Tablets .. .. .. | 1 | — |
| *Rice Flour .. .. .. .. | 2 | 1 |
| Rum .. .. .. .. .. | 34 | 3 |
| *Salad Cream .. .. .. | 2 | — |
| *Sauce .. .. .. .. | 1 | — |
| *Sausage Colouring .. .. .. | 1 | — |
| *Sausage Seasoning .. .. .. | 1 | — |
| *Sausages .. .. .. .. | 33 | 15 |
| Spice .. .. .. .. | 1 | — |
| Sugar .. .. .. .. | 1 | — |
| Whisky .. .. .. .. | 8 | 6 |
| Totals .. .. .. | 1,437 | 113 |

* See below.

In addition to the above, nearly 4,000 samples were examined during the year by officers of the Public Control Department.

*Public Health* (*Dried Milk*) *Regulations*, 1923 *and* 1927.—No action was taken under these Regulations during the year.

*Public Health* (*Condensed Milk*) *Regulations*, 1923 *and* 1927.—Samples of a certain brand of machine-skimmed condensed milk were found upon analysis to be slightly deficient in milk solids. As the condensed milk in question was imported from Holland, the facts were communicated to the Ministry of Health for appropriate action.

*Public Health* (*Preservatives, &c., in Food*) *Regulations*, 1925 *and* 1927.—In the foregoing table, articles marked * were also examined for the presence of preservatives. All the samples of meat, minced beef, rice-flour, sausages and cream shown as adulterated contained preservative.

Copper sulphate was found in a certain brand of tinned peas imported from Italy, and the facts were communicated to the Ministry of Health for appropriate action.

## Local Government Act, 1929.

On 1st April, 1930, as the result of the passing of the Local Government Act, Boards of Guardians ceased to exist and their powers were transferred to County and County Borough Councils. As mentioned in my report last year, in accordance with Section 5 of the Act the County Council had prepared a scheme of administrative arrangements proposed to be made for the discharge of the functions transferred to them under Part I of the Act. One of the most noteworthy features of this scheme was the provision that the Public Assistance Committee, which the Act required the County Council to set up, should be the same committee as the Public Health Committee. Various functions which hitherto had been carried out by the Public Health, Housing and General Purposes Committee were allocated to a newly formed General Purposes Committee and to other committees of the County Council, leaving the new committee to devote itself to the work of public health and public assistance. The policy thus adopted brought into the closest possible relationship the care of the sick, which the Council was required to undertake under its newly acquired public assistance powers, with the treatment of persons suffering from tuberculosis, venereal diseases, &c., and other work of a preventive or curative character carried out under various Public Health Acts. It has also rendered it possible, when the County Council deems the time is opportune, to carry out with the least possible disturbance of working arrangements, the Council's expressed intention of, so far as practicable, dealing with the institutional treatment of sick persons under the Public Health Acts instead of the Poor Law.

After prolonged discussion the County Council decided that it would not exercise the powers of co-option granted to it under the Local Government Act, especially having regard to the presence on the Committee of members of the County Council with wide experience of Poor Law administration, but would restrict membership of the Public Health and Public Assistance Committee to members of the County Council.

In order to exercise supervision over the management of the several hospitals and institutions transferred to the County Council, the Public Health and Public Assistance Committee appointed an Institutions Sub-Committee and for convenience of management divided the hospitals and institutions into three groups, the Northern, Central and Southern Groups, each of which was placed under the immediate control of a House Committee constituted from members of the Institutions Sub-Committee. It was arranged that the several House Committees should meet monthly in turn at each of the institutions in its area, and that the House Committees should report to the full Institutions Sub-Committee, which also in turn should meet in each of the three areas in the County, thus giving all members of the Institutions Sub-Committee a personal knowledge of all the various institutions for which they are responsible.

On pages 35–45 are printed a series of statistical returns affording information of the work in connection with the treatment of the sick carried out at each of the transferred hospitals and institutions for which the County Council now is responsible, but, for the information of members of the County Council who are not members of the Public Health and Public Assistance Committee, it may not be inappropriate to make brief reference to the nature of these several institutions and the character of the work carried out at each.

In the Northern section of the County and under the control of the Northern House Committee are :—North Middlesex Hospital, Edmonton House, Enfield House and Fortescue Villas, and Chase Farm Schools. Edgbury, a convalescent home situated at Woburn Sands, Buckinghamshire, and transferred to the County Council from the late Edmonton Board of Guardians, also comes under the supervision of the Northern House Committee.

The Central House Committee is responsible for the management of Park Royal Hospital, Redhill Hospital and Redhill Institution, whilst the Southern House Committee is responsible for the management of West Middlesex Hospital, Warkworth House, Hillingdon Institution and Staines Institution.

In addition to the hospitals and institutions enumerated above, there are several residential institutions for children as well as central and scattered homes, but, as the management of these has been placed by the Public Assistance Committee under the control of a special Children Sub-Committee, and these establishments are not intended to deal with the sick, I do not propose to refer further to them in this report.

*North Middlesex Hospital.*—This is a large general hospital with accommodation for approximately 900 patients and is chiefly devoted to the treatment of acute cases both of medical and surgical character. It is staffed by a resident medical superintendent and ten whole-time assistant medical officers. In addition there is a staff of ten part-time visiting specialists. The extent and scope of the work carried out at the hospital can be judged by reference to the statistical returns which appear on pages 35, 42, 43 and 44 of this report, and from this it will be seen that during the nine months ended 31st December, 1930, there were admitted to the hospital 8,216 cases, 3,418 operations under general anæsthesia were performed, and 928 confinements took place at the hospital, whilst a total of 40,403 attendances were made by out-patients. It should be added that the hospital is provided with well equipped departments for radium treatment and deep X-ray therapy. There are also departments for electrical treatment and radiology, but these were not adequately housed and at the close of the year a new building for the X-ray plant, commenced by the late Guardians, was in course of completion, as was also a large addition to the nurses' home. At this hospital a large ante-natal clinic is held, and agreements entered into by the late Guardians with the Borough Council of Hornsey

and the Urban District Councils of Edmonton, Enfield, Southgate, Tottenham and Wood Green, provide for the reception at the hospital, for their confinements, of women attending welfare centres in these districts, the several local Councils paying an agreed rate to the County Council for the facilities provided. There are also at the hospital dental, ophthalmic, ear, nose and throat, remedial exercise and massage departments.

The North Middlesex Hospital is the only hospital in the County which is provided with a reasonably equipped pathological laboratory, and to which is attached a Visiting Pathologist. The Medical Superintendent has prepared a report on the work of the hospital during the nine months it has been under the control of the County Council, and this, in a somewhat abridged form, will be found as Appendix I to this report (page 136 *et seq.*).

Within the same curtilage as North Middlesex Hospital is another large institution, namely *Edmonton House*. This is a mixed institution, *i.e.*, it provides for the reception of both healthy and sick persons. The total accommodation of Edmonton House is 757, and at the close of the year, out of 687 inmates, 215 were classified as sick; amongst this number were those who, whilst not suffering from definite disease, were so infirm and required so much nursing attention as to justify their classification in the category of sick. Included in the accommodation at Edmonton House are observation wards for the reception of cases of mental disease. The institution is under the administration of a master and matron and the medical attendance on the inmates is provided by the staff of the North Middlesex Hospital. As the proportion of sick persons received at the institution gradually increases, it is being found more and more necessary to make structural alterations in the wards, &c., so as to render accommodation originally designed for able-bodied persons, suitable for the reception of the infirm and sick.

*Enfield House* comprises an old group of buildings in which are housed both sick and aged healthy persons. The accommodation for each of these classes is 17 male sick, 52 female sick, 81 male healthy, and 104 female healthy, but in addition there is an entirely separate block reserved for the reception of 50 youths and men suffering from mental deficiency. As a whole, the main block of buildings is not well adapted for its purpose and it would seem hardly possible, short of complete reconstruction, to make it a well-planned institution. Enfield House is under the administrative control of a master and matron and medical attendance on the patients is given by an assistant medical officer who also is in medical charge of Chase Farm Schools and is attached to the staff of the North Middlesex Hospital.

*Fortescue Villas.*—This establishment consists of two adjoining terrace-houses which communicate internally and are used for the reception of 33 women and children who are under the care of the Committee for the Care of the Mentally Defective. There is a resident nursing staff and the institution is under the general administrative control of the master of Enfield House.

*Chase Farm Schools.*—Chase Farm Schools consist of well-constructed buildings originally intended for the accommodation and education of about 600 children. The modern policy of arranging that children of school age, for whom residential accommodation needs to be provided under the Poor Law, shall attend the ordinary public elementary schools in the neighbourhood, has resulted in a considerable proportion of the classroom accommodation, &c., provided at Chase Farm ceasing to serve its intended purpose. Similarly the experience of recent years has been that the number of children, for whom it is found to be necessary to provide residential accommodation under the Poor Law Acts, has been a steadily decreasing one. This is said largely to be the result of modern social legislation, such as the granting of widows' pensions, the payment of unemployment benefit, &c. As result of these various factors, when the County Council took over Chase Farm Schools, it was found that the main block of buildings and several subsidiary buildings were occupied by slightly over 300 children, ranging in age from two to sixteen, whilst a separate building, intended originally as an infirmary or sanatorium for the school, was being used as such on its upper floor, providing accommodation for 30 sick children, but its lower floor had been converted into a creche with accommodation for 37 infants transferred from the North Middlesex Hospital. Another separate block, with accommodation for 45 children, also had been diverted from its original purpose and was being used as a ward block for sick children belonging to North Middlesex Hospital. The assistant medical officer, referred to under Enfield House, resides at Chase Farm and is responsible for the medical care of all sick persons therein, under the general supervision of the Medical Superintendent of North Middlesex Hospital. The County Council have felt that Chase Farm Schools are not being utilised to the fullest extent possible nor to the best advantage, and during the course of the year the question as to their future use was under consideration, but up to the present no definite decision has been arrived at.

*Edgbury Convalescent Home.*—This institution is situated at Woburn Sands, Buckinghamshire, and is a large house which has been adapted for its present purpose. It provides accommodation for 84 patients, and at the time of transfer was found to be occupied by 27 women undergoing convalescence after treatment in the North Middlesex Hospital, and 46 chronic (chiefly bedridden) cases, which had been transferred thereto from the various Poor Law institutions in the late Edmonton Union. It is under the charge of a resident matron and is attended daily by a part-time visiting medical officer in practice in the vicinity. During 1930 the use of Edgbury as a convalescent home

for women was extended to suitable cases resident in any part of the County, but owing to lack of alternative accommodation, it was not found possible materially to reduce the proportion of chronic cases occupying beds in the home.

*Park Royal Hospital.*—Although it bears the title of "hospital," in fact this is a large mixed institution. The group of buildings on the frontage of the site constitute a general hospital with wards for medical and surgical cases, both acute and chronic, operating theatre, &c. Immediately behind these buildings there is a small separate block for maternity cases and also a small mental observation block. Towards the rear of the site are additional buildings which provide accommodation for chronic cases, aged and infirm, and able bodied persons. The total accommodation of the insitutution is 901, of which 689 beds are classified as accommodation for sick persons. The whole institution is under the administrative control of a master, who is a medical man and acts as medical superintendent, and he is assisted in his duties by a deputy master (non-medical) and three assistant resident medical officers. During the nine months ended 31st December, 1930, there were 2,924 admissions to the hospital; 581 operations were performed under general anæsthesia, and 399 confinements took place. As in the case of the North Middlesex Hospital, an agreement had been entered into between the late Guardians and the neighbouring district council, *i.e.*, the Urban District Council of Willesden, to receive the Council's maternity cases at the hospital at an agreed rate. At the time of the transference it was found, however, that there was no provision at this hospital for an ante-natal clinic nor for any special departments, neither were out-patients dealt with at the hospital. The statistical returns on pages 37, 42, 43 and 45 of this report gives some indication of the extensive work carried out at Park Royal Hospital, whilst the report prepared by the Medical Superintendent (Appendix II of this report, page 162 *et seq.*) give further details of the work of the hospital.

*Redhill Hospital.*—This is a small general hospital designed to deal with 175 cases, but actually used for over 200. It is entirely modern, having been opened by the late Minister of Health in 1927. Only acute cases are dealt with at the hospital and the turnover of work is very large. During the nine months ended the 31st December, 1930, 2,497 patients were admitted, 735 operations under general anæsthesia were performed, and 334 confinements took place. A large proportion of the confinements were cases referred from the welfare centres of neighbouring district councils, but in most instances payment was made directly by the patients (if able) and not by the district councils. The hospital is under the administration of a medical superintendent who is assisted by two resident medical officers and a visiting surgeon (part-time). Except for patients who have been discharged from the hospital, and minor accidents, out-patients are not dealt with at Redhill Hospital, there being no accommodation available for the purpose. The statistical returns of the work of the hospital, as required by the Ministry of Health, appear on pages 38, 42, 43 and 45, but attention is especially called to an extremely valuable report, largely of a statistical nature, compiled by the Medical Superintendent. This is printed as Appendix III of this report (see page 166 *et seq.*), and well repays perusal.

*Redhill Institution.*—This is a mixed institution under the administrative control of a master and provides accommodation for 114 sick and 255 healthy persons. With the exception of a recent addition to the infirmary, the buildings are old fashioned and not very satisfactory. Medical attendance on the patients is provided by a part-time medical officer who is in practice in the neighbourhood. Only healthy persons and patients suffering from chronic conditions are received at this institution, acute cases being dealt with at Redhill Hospital.

*West Middlesex Hospital* is a general hospital of approximately 400 beds, which deals largely with acute medical and surgical cases, but also has a certain number of chronic patients in its wards. It is under the administrative control of a medical superintendent, who is assisted by four resident medical officers. There are also on the staff a visiting (part-time) radiologist and an electro-therapeutist, who attend regularly, whilst the services of a visiting general surgeon and an obstetrician are available when required. During the nine months ended 31st December, 1930, the total number of admissions to the hospital was 2,355, and 569 operations under general anæsthesia were performed, whilst 54 maternity cases of special difficulty were dealt with in the wards.

For further details of the work of the hospital, reference should be made to the tables which appear on pages 39, 42 and 45 of this report. In addition to the ordinary medical and surgical work carried out at the hospital, there are departments for electro-therapeutics, radiology and massage, and buildings commenced by the late Guardians for the provision of a combined maternity block and preliminary training school for nurses, and for an electrical department with wards on the upper floors, are in course of completion.

Adjoining the West Middlesex Hospital is *Warkworth House*, which is a large well-planned mixed institution with accommodation for some 800 persons. In Warkworth House the majority of the inmates are suffering from chronic diseases, or are so aged and infirm as to come within the definition of sick. On the 31st December, 1930, the total number of sick persons in the institution was 559, as compared with 254 healthy inmates. At the present time a maternity block containing 16 beds is included in the institution, and 167 births took place during the last quarter of the year, but, when the new maternity block at the West Middlesex Hospital is completed, maternity cases will be dealt with at the hospital only and not in the institution. In the institution there are also 147 beds reserved for the accommodation of cases of mental disease and defect and epilepsy. The Medical Superintendent

of West Middlesex Hospital is responsible for medical attendance upon the patients in Warkworth House, and the master of Warkworth House is also the steward of West Middlesex Hospital.

*Hillingdon Institution.*—This is situated near Uxbridge, and is a mixed institution under the control of a master. Structurally it consists of two groups of buildings, one containing accommodation for 97 able-bodied persons, together with wards for 143 persons suffering from chronic disease and infirmity. Separated from the institution proper, but within the same curtilage, are a small isolation block, a small mental observation block, a residential nursery and an infirmary or hospital block. In this latter, which has accommodation for 76 patients, are treated the more acute cases admitted to the institution, as well as cases admitted for confinement, and when the County Council took over the institution an additional ward block, with accommodation for 62 cases, was practically completed. Generally speaking, the hospital block was found not to be fully equipped to deal with acute medical and surgical cases ; there is no proper operating theatre in the building but an adapted room is used for operations when necessary. At the time the institution came under the control of the County Council, medical attendance on the patients in the institution was provided by the services of a part-time medical officer, who also was engaged in general practice, &c., in the neighbouring district of Uxbridge, but after a short experience of the demands on the hospital, the Council were of opinion this system was inadequate and decided to appoint a whole-time officer. This officer commenced duty in November. During the nine months ended 31st December, 1930, there were 463 admissions to the sick and maternity wards of the institution, and 31 women were admitted for confinement, and 48 operations were performed under general anæsthesia.

*Staines Institution.*—This is a small mixed institution providing accommodation for rather over 300 persons. Although on the 31st December, 1930, out of the total of 235 inmates, 124 were classified as sick, these were mostly of a chronic type, and the institution is not well adapted for the treatment of acute cases, either medical or surgical. Accommodation is provided for 8 maternity cases, but, during the nine months ended 31st December, 1930, only 16 women were admitted for confinement. In the time of the late Guardians it had been the practice for cases of serious illness or accidents, occurring in the area, not to be admitted to Staines Institution, but to be transferred directly to King Edward VII Hospital, Windsor, but since the 1st April, 1930, such cases have been dealt with by admission to the West Middlesex Hospital, under the control of the County Council. Medical attendance upon the inmates of Staines Institution is provided by the services of a part-time medical officer who is in general practice in the neighbourhood.

From the foregoing summary it will be noted that, on the 1st April, the County Council had transferred to it three general hospitals providing accommodation for about 1,500 persons, one mixed institution (Park Royal Hospital) which provides hospital accommodation for about 700 acute and chronic sick, as well as institutional accommodation for about 300 aged and healthy persons ; six mixed institutions with accommodation for some 1,100 to 1,200 chronic sick and 800 healthy persons ; one residential institution for children (Chase Farm Schools), with accommodation for about 500 inmates, a part of which is used for the reception of up to 45 sick children and 37 healthy infants transferred from the North Middlesex Hospital, and one convalescent home with accommodation for 84 women.

The above, however, does not represent the total number of beds in public hospitals and institutions available for the use of Middlesex residents. Prior to the coming into operation of the Local Government Act, 1929, the Urban Districts of Finchley and Friern Barnet and the Rural District of South Mimms formed a part of the Barnet Union, and institutional cases, sick and healthy, from these districts were accommodated in the Wellhouse Hospital and Barnet Institution which are situated in Hertfordshire. Similarly, the urban districts of Hampton, Hampton Wick and Teddington, formed a part of Kingston Union and residents in these districts, requiring admission to institution, were admitted to Kingston and District Hospital and Kingston Central Relief Institution, which are situated in the County of Surrey.

Although in the case of the Barnet Union, the Middlesex residents constituted nearly two-thirds of the population of the Union, after careful consideration it was decided that no claim should be advanced by the County Council for Wellhouse Hospital, &c., to be transferred to Middlesex, but, after considerable negotiation, agreement was entered into with the Hertford County Council, providing that 150 beds for sick persons and 130 beds for healthy persons at Wellhouse Hospital and Institution should be reserved for the use of Middlesex patients for a period of eight years. Similarly, an agreement was prepared between the Middlesex County Council and the Surrey County Council whereby the former retained the right to use a total of 80 beds for sick persons and 35 beds for healthy persons at the Kingston and District Hospital and Kingston Central Relief Institution for a period of three years. This agreement was not actually completed at the end of 1930.

On the other hand, agreements were entered into by Middlesex with the Essex and Hertford County Councils respectively, under which a total of 81 beds at the North Middlesex Hospital and 64 beds at the Institutions in the northern part of the County were made available for the use of persons residing in districts in Essex and Hertfordshire which previously had formed a part of the Edmonton Union. The Essex agreement is for a period of five years, and the Hertfordshire agreement for ten years.

The experience of the nine months, during which the County Council has been responsible for the administration of the Acts providing medical assistance for necessitous persons, has shown that the accommodation transferred to the County Council by the late Boards of Guardians is far from sufficient to deal with the needs of the County. There is no doubt that for some considerable time prior to the 1st April, 1930, Boards of Guardians had refrained from embarking upon extensive schemes of enlargement of their various hospitals, &c., owing to uncertainty as to the future and, no doubt, if the Local Government Act had not been passed, much additional work of extension and improvement would have been undertaken in connection with these hospitals and institutions. Whilst in an area where the population is more or less stationary, such cessation of activity might be attended with little or no serious inconvenience, in Middlesex, where the rate of growth of population is phenomenal, this more or less inevitable period of inactivity has placed the County Council in a position of considerable difficulty.

The recent census has revealed that during the past ten years the population of Middlesex has increased by 385,519, and it is apparent, therefore, that to provide the same services in 1931 that were provided in 1921, a very considerable increase in institutional accommodation is necessary. Added to this must be taken into consideration the circumstance that public opinion as to the responsibilities of a local authority in connection with the provision of institutional treatment for the sick has undergone great change in recent years, with the result that the demand upon the accommodation provided shows continuous and progressive increase.

I think it will not be out of place to mention the various problems which had faced the late Boards of Guardians with regard to the need for increased accommodation in their several areas, and to indicate how far the Guardians had progressed in their consideration of these needs by 1st April, 1930.

As regards the northern area, mention already has been made of the building of a new electrical department at the North Middlesex Hospital, which was in course of construction on the 1st April, 1930. The Guardians had also realised the necessity for extensive additions to the nurses' home, and these buildings were in course of erection when the County Council took over the institution. With regard to the maternity work carried out at the hospital, the number of beds allocated for these services had proved inadequate to deal with the rapidly growing demand, and such accommodation as was provided at the hospital was contained in buildings constructed for other purposes and which were far from ideal for the purposes for which they were used. The late Guardians had felt the need for an immediate increase in the provision for maternity cases at the hospital and had instructed their architect to prepare a plan of a complete new maternity block to be erected on the site. This matter was held over owing to the transference of the institution to the County Council.

In the case of Redhill Hospital, the position was even more acute, inasmuch as the districts around the hospital had grown more rapidly than any other part of the County and a large housing estate had been erected in the vicinity of the hospital by the London County Council, a circumstance which had never been contemplated when the original hospital was designed. On the 1st April, therefore, the County Council found themselves in possession of an institution which required to be at least doubled in size within a comparatively early period in order to meet the pressing needs of the neighbourhood. The nurses' home also had proved too small and was found inadequate to house the staff required for the proper attendance on the patients accommodated in the existing hospital. The architects employed by the late Guardians had prepared a block plan showing the proposed development of the hospital site, but beyond this the matter had not been proceeded with, although it is understood that the need for immediate extension was the subject of communication between the Ministry of Health and the Board of Guardians during 1929.

The urgent need for the provision of suitable accommodation for children and for the erection of a new electrical department at Park Royal Hospital had been realised by the late Willesden Guardians, the consent of the Ministry to these proposals had been obtained and sketch plans provisionally approved by the Ministry of Health at the time the institution was transferred to the County Council. The Ministry of Health, however, had advised the Guardians not to proceed further with the work as the capital expense would fall upon the County Council, and recommended that the plans should be passed to the County Council in order that they might be satisfied as to the details of the proposed extensions before any expenditure was incurred. In this connection it must be pointed out that the proposals of the Guardians made no provision for the housing of the additional nursing staff required when the new extensions were in operation, and the County Council, therefore, have had to consider the question of enlarging the nurses' home in conjunction with their detailed consideration of the plans for a children's block, &c., referred to above. The late Guardians were also of opinion that the accommodation available at the hospital for maternity patients was inadequate and had applied to the Ministry of Health for permission to enlarge their maternity department. The Ministry had deferred consideration of this proposal, however, pending the decision of Willesden Urban District Council as to the provision by them of a special maternity hospital for their own use.

Reference has already been made to the extension of the Hillingdon Institution undertaken by the late Guardians in the form of an additional block containing two wards. The actual structure of these wards was completed about the date the institution was handed over to the County Council. It was found, however, that the late Guardians had made no provision for housing the additional nurses which would be required before the wards could be put into use. Accordingly, the County

Council have had to consider what steps could be taken to provide the required accommodation with the least possible delay. Meanwhile the process of equipping the wards has been proceeded with.

At the West Middlesex Hospital the late Guardians had decided that suitable provision should be made for the reception of maternity cases. This decision was arrived at owing to the desire to remove this branch of institutional work from the precincts of the Poor Law institution and establish it as a part of the adjoining hospital. In addition to this, the actual accommodation available for maternity cases in the institution was not well planned for its purpose and was inadequate in size. At the time the County Council took over the management of the West Middlesex Hospital, it was found that the Guardians had in course of erection a modern maternity block affording accommodation for some thirty maternity cases, together with the necessary resident staff, and in the same building provision was made for the accommodation of the nurses preliminary training school belonging to the hospital. The Guardians also had commenced the erection of an addition to the hospital in the form of a block containing, on the ground floor, an electro-therapeutic department, and, on the upper storeys, wards for the accommodation of some sixty female patients, including sick members of the hospital and institution staffs. At the close of the year, building operations were still proceeding on both the maternity and electrical departments. It should be added that, as in the case of Hillingdon Institution, with the exception of the accommodation for the maternity staff and the preliminary training school pupils, no provision was made for the additional nursing or medical staffs necessitated by the above-mentioned increase in the size of the hospital, and the question as to the best method by which this problem can be solved is still engaging the attention of the County Council. The chief difficulty which is being experienced in this connection results from the circumstance that it is impossible to enlarge the existing nurses' home owing to its position on the site.

From the foregoing it will be seen that the late Guardians in Middlesex fully appreciated the fact that, notwithstanding the impending transference to the County Council of their several hospitals and institutions, some of the requirements which it was their duty to meet were of so urgent a character as to brook no delay. It is unfortunate that, except in the case of the North Middlesex Hospital, the additional provision required for the staffs necessary to administer the several extensions set out above also were not included in the works commenced by the late Guardians.

The County Council, appreciating the magnitude of the task which had been placed upon them by the Local Government Act, felt that it would be unwise to undertake any additional extensions until they had had full opportunity of ascertaining by experience the effect which the placing of all the hospitals under one unified control would have upon the adequacy of the existing provision. A very short time however, sufficed to convince the Council that very extensive additions to the hospitals would be necessary, and much time has been spent in formulating schemes for the development of the several hospitals in the most efficient manner. Advantage has been taken of County control to mitigate abnormal overcrowding occurring in any one of these hospitals during times of local pressure on accommodation, and also to render available to all residents in the County the facilities provided at individual hospitals for the giving of special treatment, such as radium treatment at the North Middlesex County Hospital, electrical treatment at the West Middlesex County Hospital, &c.

Another subject which has occupied the County Council during the year is the question of the conditions of service, salaries, &c., of the staffs employed in the various transferred hospitals and institutions. It was found that there existed very great discrepancies between the salaries and terms of employment of officers engaged upon similar duties, but employed in different hospitals, and at the close of the year a complete scheme, setting out conditions applicable to all future appointments on the medical and nursing staffs of the institutions, &c., belonging to the County Council, was nearing completion. The Committee have given instructions that proposals shall be formulated with a view to placing existing officers in their appropriate positions on the scales of salaries, &c., included in the scheme.

The responsibilities of the County Council under the Poor Law Acts in respect of the provision of medical treatment for the necessitous sick, include the provision of domiciliary as well as institutional treatment. This service is under the general control of the Out-Relief and General Purposes Sub-Committee of the Public Health and Public Assistance Committee, and is administered by the Local Guardians Committees set up in accordance with Section 7 of the Local Government Act, 1929.

The County Medical Officer is the adviser of the Public Health and Public Assistance Committee and its various sub-committees on all medical matters, and he reports to the Out-Relief Sub-Committee on any medical questions relating to domiciliary medical attendance calling for special consideration. The actual work of domiciliary medical attendance is provided by duly appointed general medical practitioners, who are termed district medical officers. A list of these, showing the respective areas of the County for which they are medically responsible, will be found on pages viii and ix of the report.

In connection with both in-patient and domiciliary treatment the need for various ancillary services exists. These include the provision of surgical appliances; dental treatment, &c., and the sending of patients to convalescent homes, special hospitals, colonies and the like. All these matters are dealt with centrally and under the general control of the County Medical Officer and his staff. At the close of the year 236 patients were being maintained by the County Council in such institutions.

SUMMARY OF THE RETURNS RELATING TO THE INSTITUTIONAL TREATMENT OF THE SICK PREPARED BY THE MEDICAL SUPERINTENDENTS AND MEDICAL OFFICERS AND REQUIRED BY THE MINISTRY OF HEALTH

*North Middlesex Hospital.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. .. | 4 | 80 | 88 | 80 | 86 | 9 | 4 | 169 | 178 |
| Surgical .. .. .. | 7 | 107 | 87 | 105 | 115 | 35 | 30 | 247 | 232 |
| Children .. .. .. | 1 | — | — | — | — | 46 | 38 | 46 | 38 |
| Chronic sick* .. .. | 8 | 91 | 46 | 193 | 165 | — | — | 284 | 211 |
| Venereal .. .. .. | — | — | — | — | — | — | — | — | — |
| Tuberculosis .. .. | — | — | — | — | — | — | — | — | — |
| Isolation .. .. .. | — | — | — | — | — | — | — | — | — |
| Maternity block .. .. | 1 | — | — | 58 | 49 | — | — | 58 | 49 |
| Mental .. .. .. | 2 | 19 | 7 | 15 | 2 | — | — | 34 | 9 |
| Mental defectives .. | — | — | — | 11 | — | 2 | — | — | 13 |
| Other :— | | | | | | | | | |
| Epilepsy .. .. | — | — | — | 5 | — | 2 | — | — | 7 |
| Senile Dementia .. | 1 | — | 13 | 65 | 51 | — | — | 65 | 64 |
| TOTAL .. .. | 24 | 297 | 257 | 516 | 472 | 90 | 72 | 903 | 801 |

* NOTE.—Patients needing hospital treatment because they are suffering from some chronic disease : also aged infirm persons whose medical and nursing needs approximate to those of chronic patients.

Not included in above table :—

| | |
|---|---|
| 10 balcony beds (available in good weather only) for tubercular patients | Occupied 31.12.30, Nil. |
| 48 cots for maternity infants .. .. .. .. .. .. | Occupied 31.12.30, 41. |

*Extent of Provision for Out-Patients.*

| | |
|---|---|
| Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise. | (1) Dispensary ; (2) Nose, throat and ear ; (3) General dressings and treatments ; (4) Ophthalmic ; (5) Massage ; (6) Ante-natal ; (7) Casualties ; (8) Dental ; (9) Electro-therapeutic and ultra violet ray ; (10) Radium and deep therapy Rontgen ; (11) Rontgen diagnostic. |
| Total number of persons seen in the out-patient department. | 22,734. |
| Number of these persons who were admitted for in-patient treatment in the Institution. | Figures not available for 1930. |
| Number of these persons who had received in-patient treatment in the Institution. | Figures not available for 1930. |
| Total number of attendances in the out-patient department. | 40,403. |
| Ante-natal clinic, number of women seen and the total number of attendances. | Approximately 3,000 to 4,000 attendances. |
| Venereal disease clinic .. .. .. .. | No V.D. Clinic. |

*Edmonton House.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| *Chronic sick .. .. | 9 | 95 | 95 | 120 | 120 | — | — | 215 | 215 |
| Total .. .. | 9 | 95 | 95 | 120 | 120 | — | — | 215 | 215 |

* *See* note above.

*Extent of provision for Out-Patients*—Nil.

*Enfield House.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| *Chronic sick .. .. | 7 | 17 | 9 | 52 | 51 | — | — | 69 | 60 |
| Mental defectives .. | 8 | 49 | 47 | — | — | 1 | 1 | 50 | 48 |
| Total .. .. | 15 | 66 | 56 | 52 | 51 | 1 | 1 | 119 | 108 |

* *See* note on page 35.

*Extent of provision for Out-Patients*—Nil.

*Forteseue Villas, Enfield.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Mental defectives .. | — | — | — | 3 | 3 | 30 | 30 | 33 | 33 |
| Total .. .. | — | — | — | 3 | 3 | 30 | 30 | 33 | 33 |

*Extent of provision for Out-Patients*—Nil.

*Chase Farm Schools.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Children from Chase Farm Schools.. .. | 6 | — | — | — | — | 75 | 57 | 75 | 57 |
| Children from North Middlesex Hospital .. | 4 | — | — | — | — | 39 | 30 | 39 | 30 |
| Total .. .. | 10 | — | — | — | — | 114 | 87 | 114 | 87 |

*Extent of provision for Out-Patients*—Nil.

*Edgbury Convalescent Home.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Childrn. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. | — | — | — | 80 | 64 | — | 9 | 80 | 73 |
| Total .. .. | — | — | — | 80 | 64 | — | 9 | 80 | 73 |

*Extent of provision for Out-Patients*—Nil.

*Park Royal Hospital.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical† .. .. | 6 | 66 | 56 | 87 | 43 | 28 | 28 | 181 | 127 |
| Surgical .. .. | 3 | 59 | 51 | 60 | 40 | 18 | 18 | 137 | 109 |
| Children‖ .. .. | 2 | — | — | — | — | — | — | — | — |
| Chronic sick* .. | 4 | 111 | 111 | 177 | 177 | — | — | 288 | 288 |
| Venereal .. .. | — | — | — | — | — | — | — | — | — |
| Tuberculosis† .. | — | — | — | — | — | — | — | — | — |
| Isolation .. .. | — | — | — | — | — | — | — | — | — |
| Maternity .. .. | 1 | — | — | 24† | 21 | — | — | 24 | 21 |
| Mental .. .. | | | | | | | | | |
| (*a*) Short stay .. | 2 | 9 | 8 | 43 | 38 | 7 | 7 | 59 | 53 |
| (*b*) Long stay .. | | | | | | | | | |
| Mental defectives .. | — | — | — | — | — | — | — | — | — |
| Other .. .. | 3 | 114 | 11‡<br>61§ | 56 | 9‡<br>35§ | 42 | 20§ | 212 | 20‡<br>116§ |
| Total .. .. | 21 | 359 | 298 | 447 | 363 | 95 | 73 | 901 | 734 |

* *See* note on page 35. † Including 10 beds in other wards. ‡ Epileptic. § Healthy.
‖ Children in these wards are included in figures given under medical, surgical, and other cases.

*Extent of provision for Out-Patients.*

| | |
|---|---|
| Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise. | Emergency cases and accidents. |
| Total number of persons seen in the out-patient department. | 440. |
| Number of these persons who were admitted for in-patient treatment in the Institution. | 23. |
| Number of these persons who had received in-patient treatment in the Institution. | Figures not available. |
| Total number of attendances in the out-patient department. | 440. |
| Ante-natal clinic .. .. .. .. .. | Nil. |
| Venereal disease clinic .. .. .. .. | Nil. |

*Redhill Hospital.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. .. | 2 | 32 | 18 | 30 | 27 | — | 10 | 62 | 55 |
| Surgical .. .. .. | 2 | 30 | 30 | 28 | 22 | — | 6 | 58 | 58 |
| Children .. .. .. | 1 | — | — | — | — | 28 | 21 | 28 | 21 |
| Chronic sick* .. .. | 2 | 7 | 4 | 8 | 2 | — | 1 | 15 | 7 |
| Venereal .. .. .. | | | | | | | | | |
| Tuberculosis .. .. | | | | | | | | | |
| Isolation .. .. .. | | | | | | | | | |
| Maternity .. .. | 1 | — | — | 25 | 23 | — | — | 25 | 23 |
| Mental .. .. .. | — | — | — | — | — | — | — | — | — |
| (*a*) Short stay .. | — | — | — | — | — | — | — | — | — |
| (*b*) Long stay .. .. | — | — | — | — | — | — | — | — | — |
| Mental defectives .. | — | — | — | — | — | — | — | — | — |
| Other .. .. .. | — | — | — | — | — | — | — | — | — |
| Total .. .. | 8 | 69 | 52 | 91 | 74 | 28 | 38 | 188 | 164 |

* *See* note on page 35.

*Extent of provision for Out-Patients.*

| | |
|---|---|
| Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise. | No out-patient department exists. Cases of injury not in need of in-patient treatment receive attention in receiving room. If such cases require further out-patient treatment, they are referred to their private or panel doctors. Patients discharged from wards, before treatment is completed, return to the wards for daily dressings. Those requiring further massage after discharge, return to the wards for this, there being no massage room. Ear cases return for daily dressings in the medical superintendent's office. No consultations are held. |
| Total number of persons seen in the out-patient department. | 706. |
| Number of these persons who were admitted for in-patient treatment in the Institution. | 4. |
| Number of these persons who had received in-patient treatment in the Institution. | 94. |
| Total number of attendances in the out-patient department— | |
| Aural .. .. .. .. .. .. | 350 |
| Massage .. .. .. .. .. .. | 390 |
| X-Ray .. .. .. .. .. .. | 141 |
| Casualties .. .. .. .. .. .. | 471 |
| Return to ward .. .. .. .. .. | 150 |
| | 1,502 |
| Ante-natal clinic, number of women seen and the total number of attendances. | 354 and 1,250. |
| Venereal disease clinic .. .. .. .. | Nil. |

*Redhill Institution.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Chronic sick* .. .. | 7 | 37 | 36 | 72 | 70 | Nil | 2† | 109 | 108 |
| Mental .. .. .. | 3 | 2 | — | 3 | 1 | — | — | 5 | 1 |
| Total .. .. | 10 | 39 | 36 | 75 | 71 | — | 2 | 114 | 109 |

* *See* note on page 35. † In adult beds: 1 female, 1 male.

*Extent of provision for Out-Patients.*—Nil.

*West Middlesex Hospital.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children. (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. .. | 8 | 91 | 79 | 90 | 76 | — | — | 181 | 155 |
| Surgical .. .. .. | 3 | 28 | 26 | 45 | 38 | — | — | 73 | 64 |
| Children .. .. .. | 6 | — | — | — | — | 93 | 76 | 93 | 76 |
| Chronic sick* .. .. | — | — | — | — | — | — | — | — | — |
| Venereal .. .. .. | — | — | — | — | — | — | — | — | — |
| Tuberculosis .. .. | 4 | 16 | 13 | 16 | 12 | — | — | 32 | 25 |
| Isolation .. .. .. | 2 | — | — | — | — | 16 | 12 | 16 | 12 |
| Maternity .. .. | — | — | — | — | — | — | — | — | — |
| Mental .. .. .. | — | — | — | — | — | — | — | — | — |
| (*a*) Short stay .. | — | — | — | — | — | — | — | — | — |
| (*b*) Long stay .. | — | — | — | — | — | — | — | — | — |
| Mental defectives .. | — | — | — | — | — | — | — | — | — |
| Other .. .. .. | — | — | — | — | — | — | — | — | — |
| Total .. .. | 23 | 135 | 118 | 151 | 126 | 109 | 88 | 395 | 332 |

* *See* note on page 35.

*Extent of provision for Out-Patients.*

| | |
|---|---|
| Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise | Only provided for continuation of treatment after patients have left the hospital. |
| Total number of persons seen in the out-patient department. | Not known. |
| Number of these persons who were admitted for in-patient treatment in the Institution. | None. |
| Number of these persons who had received in-patient treatment in the Institution. | Not known definitely, but most of the above. |
| Total number of attendances in the out-patient department. | Electrical treatment .. .. .. 3,219<br>Massage .. .. .. .. .. 1,254<br>X-Ray treatment .. .. .. 82<br>Total .. .. .. 4,555 |
| Ante-natal clinic .. .. .. .. .. | Nil. |
| Venereal disease clinic .. .. .. .. | Nil. |

*Warkworth House.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Chronic sick* .. .. | 25 | 157 | 154 | 251 | 246 | 7 | 7 | 415 | 407 |
| Maternity .. .. | 2 | — | — | 16 | 15 | — | — | 16 | 15 |
| Mental .. .. .. | 11 | — | — | — | — | — | — | — | — |
| (*a*) Short stay .. | | 30 | 28 | 74 | 66 | 1 | 1 | 105 | 95 |
| (*b*) Long stay .. | | | | | | | | | |
| Mental defectives .. | | 8 | 8 | 8 | 8 | 9 | 9 | 25 | 25 |
| Epileptics .. .. | | 6 | 6 | 11 | 11 | — | — | 17 | 17 |
| Other .. .. .. | | — | — | — | — | — | — | — | — |
| Total .. .. | 38 | 201 | 196 | 360 | 346 | 17 | 17 | 578 | 559 |

* *See* note on page 35.

*Extent of provision for Out-Patients.*—Nil.

*Hillingdon Institution.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. .. | 4 | 34 | 10 | 34 | 21 | — | — | 68 | 31 |
| Surgical .. .. .. | | | | | | | | | |
| Chronic sick* .. .. | 8 | 62 | 52 | 81 | 78 | 6 | 5 | 149 | 135 |
| Tuberculosis .. .. | — | — | — | — | 1 | — | — | — | 1 |
| Maternity .. .. | 1 | — | — | 2 | 4 | — | — | 2 | 4 |
| Mental— | | | | | | | | | |
| (*a*) Short stay .. | 1 | 4 | 4 | 4 | 1 | — | — | 8 | 5 |
| (*b*) Long stay .. | — | — | — | — | 1 | — | — | — | 1 |
| Mental defectives .. | — | — | 2 | — | — | — | — | — | 2 |
| Total .. .. | 14 | 100 | 68 | 121 | 106 | 6 | 5 | 227 | 179 |

* *See* note on page 35.

Up to 1st November, 1930, the medical care of the patients was under the control of a part-time officer, also in general practice. Two new wards with accommodation for 62, erected by the late Guardians, are being equipped, but there is no accommodation for the nursing staff which will be required before these can be utilised.

*Extent of provision for Out-Patients.*

Nature and scope of the out-patient provision for continuation of treatment, emergency treatment, consultations or otherwise.

This hospital is in the process of development, and at the moment there is no out-patient department. Provisions are being made for emergency treatment. Continuation treatment is to a small extent being practised.

*Staines Institution.*

ACCOMMODATION FOR THE SICK AND THE NUMBER OF BEDS OCCUPIED ON THE 31ST DECEMBER, 1930.

| Classification of Wards. | Number of Wards. | Beds. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Men. | | Women. | | Children (Under 16). | | Total. | |
| | | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. | Provided. | Occupied. |
| Medical .. .. .. | 6 | 5 | 5 | 5 | 5 | 1 | 1 | 11 | 11 |
| Surgical .. .. .. | 6 | 4 | 1 | 4 | — | — | — | 8 | 1 |
| Children .. .. .. | 1 | — | — | — | — | 14 | 12 | 14 | 12 |
| Chronic sick* .. .. | — | 55 | 49 | 40 | 44 | 3 | 3 | 98 | 96 |
| Isolation .. .. .. | 2 | 4 | — | 4 | — | — | — | 8 | — |
| Maternity .. .. | 2 | — | — | 8 | 2 | — | — | 8 | 2 |
| Mental— | | | | | | | | | |
| (*a*) Short stay .. | 2 | 2 | — | 2 | — | — | — | 4 | — |
| (*b*) Long stay .. .. | | | | | | | | | |
| Other—Epileptic .. | — | 1 | 1 | 1 | 1 | — | — | 2 | 2 |
| Total .. .. | 19 | 71 | 56 | 64 | 52 | 18 | 16 | 153 | 124 |

* *See* note on page 35.

*Extent of provision for Out-patients*—Nil.

STATISTICS RELATING TO IN-PATIENTS DEALT WITH AT THE COUNTY COUNCIL'S HOSPITALS AND INSTITUTIONS DURING THE PERIOD FROM THE 1ST APRIL TO THE 31ST DECEMBER, 1930.

| | North Middlesex Hospital. | Edmonton House. | Enfield House. | Fortescue Villas. | Chase Farm Schools. | | Edgbury Convalescent Home. | Park Royal Hospital. | Redhill Hospital. | Redhill Institution. | West Middlesex Hospital. | Warkworth House. | Hillingdon Institution. | Staines Institution. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Chase Farm Schools. | North Middlesex Hospital. | | | | | | | | |
| Total number of admissions ... | 8,216 | 170 | — | 6 | 489 | 116 | 228 | 2,924 | 2,497 | 274 | 2,355 | 1,244 | 463 | 228 |
| Number of maternity cases admitted | 958 | — | — | — | — | — | — | 399 | 342 | — | 54 | 190 | 31 | 17 |
| Number of live births ... ... | 862 | — | — | — | — | — | — | 383 | 314 | — | 39 | 163 | 35 | 16 |
| Number of still births ... ... | 66 | — | — | — | — | — | — | 17 | 20 | — | 20 | 4 | 2 | 1 |
| Number of deaths among the newly-born (*i.e.*, under four weeks of age) ... ... ... | 50 | — | — | — | — | — | — | 17 | (*g*) 8 | — | 5 | 3 | 4 | 3 |
| Total number of deaths among children under one year ... ... | 79 | 1 | — | — | 1 | | — | 43 | (*h*) 31 | — | 25 | — | 8 | — |
| Number of maternal deaths ... | 3 | — | — | — | — | | — | 1 | 6 | — | — | — | 1 | — |
| Total number of deaths ... ... | (*a*)1,077 | 81 | 19 | 2 | 4 | | 5 | 374 | 209 | 97 | 428 | 178 | 81 | 34 |
| Number of patients discharged ... | 7,179 | 101 | (*d*) 26 | (*e*) 4 | 475 | 121 | 227 | 2,584 | 2,279 | 209 | 1,983 | 1,061 | 391 | 166 |
| Average duration of stay in days of patients (total patient-days divided by deaths and discharges) | 30 | 224 | — | — | — | — | 38 | 71 | 19·41 | $35\frac{2}{3}$ | 40 | 134 | (*i*) | (*j*) |
| Number of beds occupied— | | | | | | | | | | | | | | |
| (*a*) Average during the period ... | 891 | 215 | 103·2 | 32·5 | — | — | 77 | 752 | 175·6 | 106 | 340 | 546 | 164 | (*j*) |
| (*b*) Highest ... ... ... | 979 | 215 | 110 | 33 | 59 | 28 | 80 | 799 | 210 | 111 | 382 | 583 | 166 | 130 |
| (*c*) Lowest ... ... ... | (*b*) 808 | 207 | 97 | 31 | 10 | 29 | 69 | 708 | 155 | 99 | 294 | 510 | 163 | 102 |
| Number of surgical operations under general anæsthetic (excluding dental operations) ... ... | 3,418 | — | — | — | — | — | — | 581 | 735 | — | 569 | — | 48 | — |
| Number of abdominal sections ... | (*c*) 724 | — | — | — | — | — | — | (*f*) 142 | 166 | — | 129 | — | — | — |

(*a*) Including maternal deaths.
(*b*) Including 43 infants in maternity wards.
(*c*) Excluding 117 inguinal and femoral herniæ.
(*d*) 13 to North Middlesex Hospital and 13 mentally defectives to other institutions.
(*e*) Transferred to other institutions by Committee for the Care of Mentally Defectives.
(*f*) Excluding hernias and kidney operations.
(*g*) Born in hospital.
(*h*) Including (*g*).
(*i*) Records incomplete.
(*j*) No separate records kept.

STATISTICS RELATING TO IN-PATIENTS DEALT WITH IN THE MATERNITY DEPARTMENTS OF THE COUNTY COUNCIL'S HOSPITALS AND INSTITUTIONS DURING THE PERIOD FROM THE 1ST APRIL TO THE 31ST DECEMBER, 1930.

| —— | North Middlesex Hospital. | Park Royal Hospital. | Redhill Hospital. | Wark-worth House.* | Hillingdon Institu-tion. | Staines Institu-tion. |
|---|---|---|---|---|---|---|
| Number of beds | 50 | 14 | 25 | 16 | 2 | 8 |
| Number of cases admitted during the year | 958 | 514 | 425 | 256 (68) | 49 | 19 |
| Average duration of stay (in days) | 14 | 13 | 14 | 14 | 15 | 10 |
| Number of cases delivered by— | | | | | | |
| (*a*) Midwives | 848 | 488 | 406 | 213 (13) | 45 | 17 |
| (*b*) Doctors | 71 | 26 | 18 | 9 (45) | 4 | 2 |
| Number of cases in which medical assistance was sought by a midwife | 199 | 71 | 60 | † | 11 | 2 |
| Number of cases notified as— | | | | | | |
| (*a*) Puerperal fever | 1 | — | — | — | 1 | — |
| (*b*) Puerperal pyrexia | 4 | 10 | 8 | — (2) | — | — |
| Number of cases of pemphigus neonatorum | 2 | 1 | — | — | — | — |
| Number of infants not entirely breastfed while in the Institution | † | 8 | 7 | 17 | 4 | 1 |
| Number of cases notified as ophthalmia neonatorum | — | 3 | — | — | 1 | — |
| Number of maternal deaths | 3 | 4 | 6 | — (1) | 1 | — |
| Cause of death in each case— | | | | | | |
| Eclampsia | 1 | — | 1 | — | — | — |
| Other toxæmias of pregnancy | — | — | 2 | — | — | — |
| Placenta prævia | — | 2 | 1 | 1 | — | — |
| Rupture of the uterus | — | 1 | — | — | — | — |
| Puerperal sepsis | 2 | 1 | 2 | — | — | — |
| Morbus cordis | — | — | — | — | 1 | — |
| Number of fœtal deaths— | | | | | | |
| (i) Still-born | 66 | 20 | 23 | 4 (26) | 3 | 1 |
| (ii) Within 10 days of birth | 11 | 10 | 10 | 4 (3) | 2 | 3 |
| Cause of death in each case— | | | | | | |
| Still-births— | † | | | † | | † |
| Maternal conditions— | | | | | | |
| Maternal toxæmia | | 2 | 12 | | 1 | |
| Maternal syphilis | | — | 1 | | — | |
| Complications of labour— | | | | | | |
| Concealed accidental hæmorrhage | | 1 | — | | — | |
| Placenta prævia | | 5 | 4 | | — | |
| Prolapse of cord | | 1 | 1 | | — | |
| Prolonged abnormal labour | | 5 | 1 | | 2 | |
| Rupture of the uterus | | 1 | — | | — | |
| Fœtal states— | | | | | | |
| Prematurity | | 5 | — | | — | |
| Post-maturity | | — | 2 | | — | |
| Anencephaly | | — | 1 | | — | |
| Intracranial injury | | — | — | | — | |
| Neo-Natal Deaths— | | | | | | |
| Prematurity | 7 | 8 | 6 | 2 (2) | 1 | — |
| Fœtal shock | — | — | 3 | — | — | — |
| Birth injury | 1 | 1 | 1 | — | 1 | — |
| Asphyxia | 3 | — | — | 1 | — | 2 |
| Developmental defects | — | 1 | — | 1 (1) | — | 1 |

* The figures in brackets refer to cases which, owing to difficulty or abnormality occurring in labour, were transferred to the West Middlesex Hospital for their confinements.

† Information not available.

CLASSIFICATION OF IN-PATIENTS WHO WERE DISCHARGED FROM OR WHO DIED IN THE 31ST DEC

| DISEASE GROUPS. | North Middlesex Hospital. | | Edmonton House. | | Enfield House. | | Fortescue Villas. | | Chase Farm Schools. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | |
| | | | | | | | | | North Middlesex Hospital. | Chase Farm Schools. |
| A. Acute infectious disease (1)* ... ... | 36 | 93 | 1 | — | — | — | — | — | 4 | 139 |
| B. Influenza (2) ... ... ... ... | — | 16 | — | 3 | — | — | — | — | — | 46 |
| C. Tuberculosis— | | | | | | | | | | |
| Pulmonary ... ... ... ... | 5 | 117 | — | — | — | — | — | — | 1 | — |
| Non-pulmonary ... ... ... | 27 | 31 | — | — | — | 1 | — | — | 4 | — |
| D. Malignant disease (3) ... ... ... | 1 | 299 | — | — | — | 4 | — | — | — | — |
| E. Rheumatism— | | | | | | | | | | |
| (1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea ... ... | 87 | 59 | — | — | — | — | — | — | 42 | 6 |
| (2) Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica) ... ... | 1 | 27 | — | — | — | — | — | — | — | — |
| (3) Chronic arthritis ... ... ... | — | 80 | — | 6 | — | — | — | — | — | — |
| F. Venereal disease ... ... ... | — | 6 | — | — | — | — | — | — | — | — |
| G. Puerperal pyrexia ... ... ... | — | 10 | — | — | — | — | — | — | — | — |
| H. Puerperal fever ... ... ... ... | — | — | — | — | — | — | — | — | — | — |
| I. Other diseases and accidents connected with child bearing ... ... ... | 1 | 248 | — | — | — | — | — | — | — | — |
| J. Mental diseases ... ... ... ... | 15 | 372 | — | 3 | — | 17 | 6 | — | 3 | — |
| K. Senile decay (4)... ... ... ... | — | 122 | — | 47 | — | 2 | — | — | — | — |
| L. Violence (5) ... ... ... ... | 223 | 615 | — | — | — | — | — | — | 4 | 7 |
| *In respect of cases not included above.* | | | | | | | | | | |
| M. Disease of the Nervous System and Sense Organs ... ... ... ... | 105 | 464 | — | 14 | — | — | — | — | — | 2 |
| N. Disease of the Respiratory System ... | 111 | 304 | — | 48 | — | 3 | — | — | 29 | 38 |
| O. ,, Circulatory System ... | 11 | 457 | — | 60 | — | 14 | — | — | 2 | — |
| P. ,, Digestive System ... | 305 | 990 | — | — | — | 3 | — | — | 13 | 29 |
| Q. ,, Genito-urinary System | 49 | 399 | — | — | — | 1 | — | — | 5 | 3 |
| R. ,, Skin ... ... ... | 93 | 172 | — | — | — | — | — | — | — | — |
| S. Other diseases ... ... ... ... | 979† | 1,326† | — | — | — | — | — | — | 14 | 209 |
| T. Healthy ... ... ... ... ... | — | — | — | — | — | — | — | — | — | — |
| Total ... ... ... ... | 2,049 | 6,207 | 1 | 181 | — | 45 | 6 | — | 121 | 479 |

*(1) Including—with the exception of Influenzal Pneumonia, Tuberculosis, Puerperal Pyrexia and Puerperal Fever—all generally notifiable diseases, together with Measles, German Measles, Chickenpox, Whooping Cough and Mumps. Cases of Influenzal Pneumonia, Tuberculosis, Puerperal Pyrexia and Puerperal Fever are recorded respectively among Groups B, C, G and H. Cases of Encephalitis Lethargica are entered under Group A if acute and under Group M if chronic.

(2) Including acute Influenzal Pneumonia.

(3) Including Carcinoma and Sarcoma.

(4) Confined to cases and deaths in which no more specific diagnosis was practicable.

(5) Including suicides, attempted suicides and poisoning cases.

† Including maternity mothers and infants.

COUNTY COUNCIL'S HOSPITALS AND INSTITUTIONS DURING THE PERIOD 1ST APRIL TO EMBER, 1930.

| Edgbury Convalescent Home. | | Park Royal Hospital. | | Redhill Hospital. | | Redhill Institution. | | West Middlesex Hospital. | | Warkworth House | | Hillingdon Institution. | | Staines Institution. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Children (under 16). | Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | Children (under 16). | Men and Women. | |
| — | — | 11 | 12 | 41 | 55 | — | — | 118 | 66 | 3 | 3 | — | 14 | |
| — | — | 54 | 8 | — | 1 | — | — | 1 | 11 | — | 1 | — | 7 | |
| — | — | 1 | 48 | 1 | 20 | — | — | 3 | 99 | — | 1 | — | 7 | |
| — | — | 2 | 6 | 1 | 3 | — | 3 | 9 | 18 | — | 2 | — | 1 | |
| — | 2 | 6 | 61 | — | 38 | — | 22 | — | 117 | — | 17 | — | 18 | |
| 11 | 6 | 3 | 15 | 26 | 19 | — | — | 35 | 29 | — | 2 | 2 | 2 | |
| — | 10 | 8 | 9 | — | 9 | — | — | — | 15 | — | 13 | — | 5 | |
| — | 8 | — | 13 | — | 15 | — | 12 | — | 29 | — | 22 | — | 8 | |
| — | — | — | — | — | 4 | — | — | 2 | 10 | — | 5 | — | — | |
| — | 6 | — | 3 | — | 7 | — | — | — | 4 | — | — | — | — | |
| — | — | — | — | — | — | — | — | — | 4 | — | — | — | 1 | |
| — | — | 14 | 80 | — | 132 | — | — | — | 172 | — | 12 | — | 8 | |
| — | — | 1 | 58 | — | 1 | — | 68 | 1 | 11 | 5 | 199 | — | 39 | |
| — | 6 | — | 69 | — | — | — | — | — | 4 | — | 16 | — | 12 | |
| 1 | 2 | 75 | 270 | 98 | 337 | — | — | 22 | 253 | 2 | 51 | 4 | 43 | |
| 11 | 44 | 27 | 96 | 21 | 51 | — | 46 | 48 | 105 | 7 | 116 | 4 | 42 | |
| 8 | 22 | 68 | 151 | 37 | 31 | — | 16 | 24 | 113 | 4 | 52 | 8 | 35 | |
| 3 | 44 | 3 | 190 | 12 | 61 | — | 94 | 10 | 205 | — | 160 | 1 | 34 | |
| 2 | 37 | 82 | 218 | 261 | 183 | — | — | 121 | 270 | 3 | 38 | 5 | 9 | |
| — | 2 | 11 | 100 | 30 | 72 | — | 3 | 18 | 124 | 2 | 14 | — | 20 | |
| — | 5 | 25 | 39 | 18 | 19 | — | 1 | 44 | 32 | 2 | 17 | 4 | 12 | |
| 2‡ | — | 31 | 527 | 68 | 174 | — | 41 | 51 | 135 | 4 | 58 | 6 | 77 | |
| — | — | 473 | 90 | 330 | 312 | — | — | 59 | 19 | 211§ | 197§ | 35‖ | 9‖ | |
| 38 | 194 | 895 | 2,063 | 944 | 1,544 | — | 306 | 566 | 1,845 | 243 | 996 | 69 | 403 | 200 |

Information not available.

‡ Osteo-myelitis.
§ Including normal labours and healthy newly-born.
‖ Newly-born infants.

## Welfare of the Blind.

The administration of the Blind Persons Act, 1920, has been delegated by the County Council to a special committee—the Blind Persons Sub-Committee of the Education Committee. The executive work of promoting the welfare of blind persons resident in the County is largely undertaken on behalf of the County Council by a voluntary association—the Middlesex Association for the Blind.

The activities of the Association include :—the keeping of the register of blind persons ; the arranging for the training of blind persons and the procuring for them of employment, where possible ; the visiting of the blind in their own homes by home teachers who give instruction in reading and writing in embossed types and in other useful and interesting occupations ; the arranging for exchange of books from the National Library for the Blind and the organisation of social functions and entertainments for blind persons.

With regard to the keeping of the register, it has been the practice of the Association for some years past to refer to the County Medical Officer the certificates of medical practitioners relating to blind persons in the case of whom any doubt existed as to whether the degree of blindness was such as to bring the persons concerned within the scope of the Blind Persons Act. In order, however, to secure as great a measure of uniformity in certification as possible, arrangements were made towards the close of 1930 that every certificate of blindness should be submitted to the County Medical Officer for scrutiny before a person's name was entered on the register of the blind. In the majority of cases it is possible, on the information contained in a certificate, to express a definite opinion as to whether a person is, or is not, blind within the meaning of the Act. In other instances, however, further information may be required before an opinion can be arrived at : in such cases it has been the practice either to arrange for the case to attend the Public Health Department for ophthalmological examination or to ask the Association to obtain the opinion of a consultant at an eye hospital or elsewhere.

During the year, 74 certificates were submitted for scrutiny. In 17 instances, as information was incomplete, arrangements were made for the persons concerned to be examined in the Public Health Department. Of the 17 cases, ten were found to be " too blind to perform work for which eyesight is essential " and seven to be not blind within the meaning of the Act.

Of the 74 cases referred to above, 47 persons were deemed to be blind and 24 not blind within the meaning of the Blind Persons Act, whilst in three cases opinion was withheld pending further investigation.

On March 31st, 1931, there were 1,503 persons whose names appeared on the register of blind persons in Middlesex ; of this number 79 were also deaf.

The cases on the register are classified as follows :—

| | |
|---|---|
| Babies | 6 |
| Children of school age :— | |
| (*a*) At school | 57 |
| (*b*) Not at school (owing to other physical or mental defect) | 13 |
| Trainable blind :— | |
| (*a*) In training in blind industrial centres | 51 |
| (*b*) Not in training | 7 |
| Employed :— | |
| (*a*) In workshops for the blind | 59 |
| (*b*) Under the County home-workers' scheme | 71 |
| (*c*) St. Dunstaners | 88 |
| (*d*) Collectors for Greater London Fund, Workshops or National Institute for the Blind | 10 |
| (*e*) Masseurs or masseuses | 13 |
| (*f*) Others | 63 |
| Trained unemployed | 5 |
| Unemployable | 1,060 |
| | 1,503 |

In its scheme of the administrative arrangements proposed to be made for discharging the functions transferred to the Council under Part I of the Local Government Act, 1929, the County Council made a declaration to the effect that " all domiciliary assistance to blind persons shall be provided exclusively by virtue of the Blind Persons Act, 1920, and not by way of poor relief."

In addition to its activities for promoting the welfare of blind persons, the Middlesex Association for the Blind also undertakes work in connection with the prevention of blindness and to this end makes arrangements for persons suffering from diseases of the eye to be examined by ophthalmic surgeons. The Association pays fares to hospitals where necessary and, in suitable cases, provides spectacles or treatment prescribed. Under the terms of sec. 66 of the Public Health Act, 1925, the County Council makes an annual grant to the Middlesex Association for the Blind to assist this work of prevention of blindness.

## Maternity and Child Welfare.

### Administration of the Midwives Acts, 1902 to 1926.

Until October 1st, 1930, the County Council was the local supervising authority under the Midwives Acts throughout the whole of the County. After the passing of the Local Government Act, 1929, applications were made to the Minister of Health under section 62 of that Act by the Borough Councils of Acton and Ealing and the Urban District Councils of Brentford and Chiswick, Edmonton, Finchley, Tottenham, Willesden and Wood Green for powers to constitute them local supervising authorities under the Midwives Acts, 1902–1926. In July, 1930, the Minister of Health issued Orders constituting the Borough Council of Ealing and the Urban District Councils of Edmonton, Tottenham and Willesden local supervising authorities under the Midwives Acts for their respective districts as from October 1st, 1930.

In the case of the Borough of Acton and the Urban Districts of Brentford and Chiswick, Finchley, and Wood Green, however, the Minister came to the conclusion that he would not be justified in acceding to these applications, and decided, therefore, not to make any Order in respect of these districts.

The powers of the County Council under the Midwives Acts, 1902 to 1926, have been delegated to the Maternity and Child Welfare Committee of the Council. The work of inspection, &c., is carried out under the general administrative control of the County Medical Officer, who is assisted by the Deputy and Assistant County Medical Officers and by the Council's Inspectors of Midwives.

*Notification of intention to practise and number of midwives in the County.*—During 1930, notices of intention to practise, either temporarily or permanently, were received from 413 midwives, representing an increase of 24 as compared with 1929. As reported above, the County Council ceased to be the local supervising authority for the Borough of Ealing and the Urban Districts of Edmonton, Tottenham, and Willesden during the last three months of the year, and during this period, therefore, did not necessarily receive notice of intention to practise from midwives who had come to reside in those areas. In this connection, however, it must be remembered that in comparing the figures for 1929 and 1930 the total of 413 midwives may be taken to represent with a fair degree of accuracy the actual total number practising in the whole County. It is reasonable to anticipate that the practice of a midwife may at times extend beyond the boundaries of the relatively small areas now subject to the control of the newly-constituted local supervising authorities, and, of the midwives who commenced practice in these districts subsequently to October 1st, 1930, a number have notified the County Council as well as the local supervising authority of the area in which they reside.

The following table shows the number of midwives practising in each sanitary district in the County.

| District. | Total Number of Midwives practising during 1930. | Removed from District during 1930. | Practising Temporarily during 1930. | Number in District end of 1930. |
|---|---|---|---|---|
| *Urban*— | | | | |
| Acton (Borough) | 12 | — | 2 | 10 |
| Brentford and Chiswick | 18 | — | 2 | 16 |
| Ealing (Borough) | 29 | 2† | 3 | 24* |
| Edmonton | 23 | 4 | 1 | 18* |
| Enfield | 11 | — | — | 11 |
| Feltham | 6 | — | 1 | 5 |
| Finchley | 7 | 1 | — | 6 |
| Friern Barnet | 3 | — | — | 3 |
| Hampton | 3 | — | — | 3 |
| Hampton Wick | 1 | — | — | 1 |
| Harrow | 13 | — | 1 | 12 |
| Hayes and Harlington | 9 | — | — | 9 |
| Hendon | 24 | — | 4 | 20 |
| Heston and Isleworth | 25 | 3 | 1 | 21 |
| Hornsey (Borough) | 14 | — | — | 14 |
| Kinsgbury | 3 | — | — | 3 |
| Ruislip-Northwood | 7 | — | — | 7 |
| Southall-Norwood | 5 | — | — | 5 |

* Numbers of midwives practising on 30th September, 1930. On 1st October, 1930, administration of the Midwives Acts, 1902–1926, was taken over from the County Council by the respective Councils of these four districts.

† 1 midwife died.

| District. | Total Number of Midwives practising during 1930. | Removed from District during 1930. | Practising Temporarily during 1930. | Number in District end of 1930. |
|---|---|---|---|---|
| *Urban*—continued. | | | | |
| Southgate .. .. .. .. .. | 8 | — | 2 | 6 |
| Staines .. .. .. .. .. | 10 | 1 | — | 9 |
| Sunbury .. .. .. .. .. | 6 | — | 1 | 5 |
| Teddington .. .. .. .. .. | 5 | 1 | — | 4 |
| Tottenham .. .. .. .. .. | 19 | — | — | 19* |
| Twickenham (Borough) .. .. .. | 15 | 2 | 2 | 11 |
| Uxbridge .. .. .. .. .. | 10 | — | — | 10 |
| Wealdstone .. .. .. .. .. | 4 | — | — | 4 |
| Wembley .. .. .. .. .. | 11 | 2 | — | 9 |
| Willesden .. .. .. .. .. | 26 | 2 | — | 24* |
| Wood Green .. .. .. .. | 10 | — | — | 10 |
| Yiewsley and West Drayton .. .. | 5 | — | 1 | 4 |
| *Rural*— | | | | |
| Hendon .. .. .. .. .. | 5 | — | — | 5 |
| South Mimms .. .. .. .. | — | — | — | — |
| *Extra County* .. .. .. .. .. | 66 | — | 16 | 50 |
| Totals .. .. .. .. | 413 | 18 | 37 | 358 |

* *See* note * on page 47.

From the foregoing table it will be observed that the number of midwives practising in the County, exclusive of those resident in Ealing, Edmonton, Tottenham and Willesden, was 273 at the end of 1930. The corresponding figure for 1929 was 239, so that during the past year there has been an increase of 34 in the number of midwives practising in that part of the County for which the County Council is still the local supervising authority. This increase is remarkable and is an indication of the very rapid growth of the peripheral area of the County, for during the whole quinquennial period, 1926–1930 inclusive, the total increase in the numbers of midwives practising in these same districts was only 45. In contrast to this increase in the number of practising midwives, owing to the fall in the birth-rate there has been an actual decrease in the total number of births attended by midwives, and taking the County as a whole, the supply of midwives is adequate to meet present demands. The only district in the County in which as yet there is no midwife practising is that of South Mimms. Owing to its geographical position this district, hitherto, has not participated to any great extent in the progressive urbanisation which is overtaking the rest of the County, and the annual number of births taking place in South Mimms has not been sufficient to encourage a midwife to reside in the area. Proposals are on foot, however, which it is hoped will result in a certified midwife being available for South Mimms residents in the near future.

In addition to the 413 midwives who notified their intention to practise, a further 842 women, holding the certificate of the Central Midwives Board, were resident in the County in 1930. Forty-six of these were employed in Poor Law institutions and, therefore, were exempted from supervision under the Midwives Acts. The remaining 796 women were not engaged in the practice of midwifery, being employed in health visiting, private nursing or other duties.

The following table gives some particulars as to the numbers of certified midwives residing or practising in the County during each of the past five years.

| Year. | Intention to Practise Notified. | Employed in Poor Law Institutions. | Not engaged in Midwifery Practice. | Total Certified Midwives. |
|---|---|---|---|---|
| 1926 .. .. .. | 355 | 45 | 694 | 1,094 |
| 1927 .. .. .. | 379 | 46 | 627 | 1,052 |
| 1928 .. .. .. | 387 | 7 | 756 | 1,150 |
| 1929 .. .. .. | 389 | 66 | 791 | 1,246 |
| 1930 .. .. .. | 413 | 46 | 796 | 1,255 |

*Qualifications of Midwives in Practice.*—The following table shows the qualifications of practising midwives during each of the past five years :—

| Year. | Passed the Examination of the Central Midwives Board. | Hold Certificate of London Obstetrical Society. | Hold Hospital Certificates other than the L.O.S. Certificate. | Enrolled by Reason of having been in *bona fide* Practice previous to the Midwives Act, 1902, coming into operation. | Total. |
|---|---|---|---|---|---|
| 1926 .. .. .. | 307 | 29 | 1 | 18 | 355 |
| 1927 .. .. .. | 330 | 31 | 1 | 17 | 379 |
| 1928 .. .. .. | 347 | 27 | — | 13 | 387 |
| 1929 .. .. .. | 358 | 20 | — | 11 | 389 |
| 1930 .. .. .. | 387 | 14 | 3 | 9 | 413 |

It will be observed that the number of certified midwives who have passed the examination of the Central Midwives Board has progressively increased, whilst the number who gained admission to the Roll without examination in virtue of having been in *bona-fide* practice prior to the Midwives Act coming into force naturally is a steadily decreasing one, and the number of such midwives in the County now amounts only to 2·18 per cent. of the total.

*Uncertificated Women.*—During 1930, the County Council instituted proceedings under the Midwives Acts against a woman for using the title of midwife, not being so certified under the Act, and also for attending a woman in childbirth otherwise than under the direction and personal supervision of a qualified medical practitioner. The summonses were heard in September, when the defendant pleaded guilty to the first charge, but not guilty on the second. The Bench, however, found the defendant guilty on the second charge also, and fined her £2 in respect of the first offence, and £5 in respect of the second, together with the sum of £2 2*s.* costs.

In five instances verbal cautions were administered by the Council's inspectors of midwives to women not certified under the Midwives Act, 1902, who were alleged to have acted as midwives. In none of these cases was the evidence sufficiently strong to warrant the institution of legal proceedings, but as far as possible the women concerned are being kept under close observation.

*Number of Births attended by Midwives.*—At the close of each year all midwives practising in the County are requested to furnish a return of the number of cases attended by them in Middlesex, either in the capacity of midwife, or as maternity nurse under the direction of a medical practitioner. The information thus obtained cannot be held to be absolutely complete, owing to deaths of midwives, removals from the County, &c., but the error thus introduced is small, and the figures obtained afford a satisfactory indication of the extent of the practice of midwives in the area. This year the usual returns have been obtained, but these relate only to the area of the County for which the County Council has been responsible for the administration of the Midwives Acts, viz., the whole administrative County for the first nine months, but with the exclusion of Ealing, Edmonton, Tottenham and Willesden for the last three months. From these returns it is found that during 1930, certified midwives attended a total of 7,727 births. The total number of births registered in the same area of the County amounted to 22,697. Thus it will be seen that the births attended by midwives were equivalent to 34·0 per cent. of all births registered in the districts in which midwives were practising under the supervision of the County Council. This figure again shows a decrease as compared with that for 1929, which was 37·1 per cent. of registered births, whilst the corresponding figure for 1925 was as high as 47·2 per cent. The progressive fall in the percentage of births attended by midwives, at any rate in part, appears to be attributable to an increasing tendency on the part of women to seek admission for their confinements either to public institutions or to voluntary or municipal hospitals and maternity homes. Whilst the value of beds in such institutions for the reception of cases presenting features of difficulty, or where the environmental conditions are such as to render confinement at home undesirable, cannot be gainsaid, it is open to question whether the practice of seeking institutional accommodation for normal confinement, when home conditions are satisfactory, is desirable.

In addition to the above, certified midwives attended, in the capacity of maternity nurse, the confinements of 2,814 women, representing 12·4 per cent. of registered births ; this is an increase on the proportion in 1929, which was 10·7 per cent.

The confinements of 378 women, equivalent to 4·9 per cent of all births attended by midwives, were attended by *bona-fide* midwives, a decrease of 22 on the figure for 1929. In addition, *bona-fide* midwives acted as maternity nurses in 39 (or 1·3 per cent.) of the 2,814 cases attended by doctors, 14 less than in the previous year.

Details as to the births attended by midwives in each sanitary district of the County are shown in the following table :—

BIRTHS ATTENDED BY MIDWIVES IN EACH SANITARY AREA IN THE COUNTY.

| District. | Births attended by Midwives residing in each District, 1930. | Births at which Midwives acted as Nurses, 1930. |
|---|---|---|
| *Urban—* | | |
| Acton (Borough) | 217 | 144 |
| Brentford and Chiswick | 401 | 52 |
| *Ealing (Borough) | 310 | 282 |
| *Edmonton | 478 | 67 |
| Enfield | 440 | 50 |
| Feltham | 176 | 44 |
| Finchley | 82 | 65 |
| Friern Barnet | 145 | 54 |
| Hampton | 164 | 50 |
| Hampton Wick | 3 | 3 |
| Harrow | 180 | 140 |
| Hayes and Harlington | 372 | 136 |
| Hendon | 467 | 165 |
| Heston and Isleworth | 474 | 157 |
| Hornsey (Borough) | 335 | 212 |
| Kingsbury | 51 | 55 |
| Ruislip-Northwood | 62 | 56 |
| Southall-Norwood | 201 | 58 |
| Southgate | 121 | 52 |
| Staines | 191 | 61 |
| Sunbury | 81 | 17 |
| Teddington | 137 | 53 |
| *Tottenham | 815 | 32 |
| Twickenham (Borough) | 359 | 115 |
| Uxbridge | 201 | 143 |
| Wealdstone | 90 | 14 |
| Wembley | 134 | 183 |
| *Willesden | 384 | 75 |
| Wood Green | 219 | 139 |
| Yiewsley and West Drayton | 199 | 20 |
| *Rural—* | | |
| Hendon | 65 | 91 |
| South Mimms | — | — |
| *Attended by midwives residing outside the County* | 173 | 29 |
| TOTALS | 7,727 | 2,814 |

* The figures relating to these districts are those for the nine months ending 30th September, 1930.

*Notifications.*—The number of notifications received from midwives, in accordance with the Rules of the Central Midwives Board, together with similar figures for the previous four years, are as follows :—

| ——— | 1926. | 1927. | 1928. | 1929. | 1930. |
|---|---|---|---|---|---|
| Notifications of— | | | | | |
| Sending for medical assistance | 1,689 | 1,760 | 1,862 | 1,940 | 1,881 |
| Still-birth | 139 | 128 | 145 | 135 | 132 |
| Death of infant | 91 | 90 | 90 | 95 | 87 |
| Death of mother | 2 | 3 | 7 | 4 | 5 |
| Laying out the dead | 32 | 33 | 41 | 31 | 37 |
| Artificial feeding | 60 | 54 | 43 | 55 | 52 |
| Liability to be a source of infection | 101 | 126 | 116 | 91 | 109 |
| Totals | 2,114 | 2,194 | 2,304 | 2,351 | 2,303 |

It will be noted that there has been a slight fall in the total number of notifications received, no doubt consequent upon the reduction in the number of midwives now under the supervision of the County Council and the decrease in the number of births attended by them.

*Notifications of Sending for Medical Assistance.*—The following analysis shows the relative numbers of these notifications falling into various categories, for the past five years :—

| Medical assistance required for conditions arising | 1926. | 1927. | 1928. | 1929. | 1930. |
|---|---|---|---|---|---|
| During pregnancy .. .. .. .. | 129 | 226 | 244 | 257 | 277 |
| During labour .. .. .. .. | 840 | 844 | 982 | 974 | 991 |
| During lying-in .. .. .. .. | 210 | 168 | 159 | 184 | 166 |
| In infant .. .. .. .. .. | 510 | 522 | 477 | 525 | 447 |
| Totals .. .. | 1,689 | 1,760 | 1,862 | 1,940 | 1,881 |

These figures call for little comment. Although there is a reduction in the total number of notifications received, the relative proportions remain much the same, but it is satisfactory to observe that the calling in of medical aid for ante-natal conditions continues to show a steady increase.

*Maternal Deaths.*—From the table on page 50 it will be seen that notifications have been received from midwives of the deaths of five women, who died while under their care. To this number must be added those cases which, originally attended by midwives, were later, owing to severe illness or complications, admitted to hospital and subsequently died there. Notification of these cases directly from midwives is not required and, consequently, they do not appear in the table. Careful enquiries are, however, made into all maternal deaths occurring in hospital and from these it was found that a further thirteen midwives' cases must be added to the five already notified, making a total of eighteen.

This figure represents a maternal death-rate for midwives' cases of 2·33 per 1,000 births attended, a marked rise on the rate for 1929 (1·56 per 1,000), but still comparing very favourably with the maternal death-rate for all births in the County, namely 4·15 per 1,000 births.

From enquiries made into each of the 18 deaths recorded above, it is found that the causes of death were as follows :—

| | | |
|---|---|---|
| Puerperal sepsis .. .. .. .. .. .. .. .. | 7 | |
| Toxæmias of pregnancy— | | |
| Eclampsia .. .. .. .. .. .. .. .. | 1 | |
| Shock following— | | |
| Hæmorrhage .. .. .. .. .. .. .. .. | 2 | 5 |
| Difficult labour (undelivered) .. .. .. .. .. | 1 | |
| Prolonged labour and exhaustion aggravated by anæsthesia .. | 2 | |
| Complications of labour or puerperium— | | |
| Transverse presentation (ruptured uterus) .. .. .. .. | 1 | 5 |
| Placenta prævia (undelivered) .. .. .. .. .. | 1 | |
| Adherent placenta .. .. .. .. .. .. .. | 1 | |
| Embolism .. .. .. .. .. .. .. .. | 1 | |
| Pneumonia .. .. .. .. .. .. .. .. | 1 | |

*Puerperal Fever and Puerperal Pyrexia.*—Under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, notifications were received of 16 cases of puerperal fever and 41 cases of puerperal pyrexia, which had been attended in their confinements by certified midwives, representing 19·5 per cent. and 18·0 per cent. respectively of the total notifications received under the Regulations.

In the consideration of these figures, it must be borne in mind that whereas the term " puerperal fever " is the name for a definite morbid condition caused by infection of the genital tract, the term " puerperal pyrexia " is wider in its application and includes any rise of temperature exceeding 100·4°, which persists for more than 24 hours, or occurs more than once during that period, and carries no implication as to the actual cause of the rise in temperature, which may or may not be due to some form of puerperal sepsis.

Very careful enquiries have been made into all cases of high temperature occurring in the practices of certified midwives, and the information obtained indicates that the rise of temperature was probably attributable to puerperal sepsis in 20 of the 57 cases of puerperal fever or puerperal pyrexia notified under the Regulations. Relating this figure to the total number of births attended by midwives, it is found to represent an incidence rate of puerperal sepsis among midwives' cases of 2·6 per 1,000 births.

The following table records the yearly number of notifications of puerperal fever, &c., and of deaths from puerperal sepsis, both in the County generally and among midwives' case for the past ten years :—

PUERPERAL FEVER AND PUERPERAL PYREXIA.

| Year. | Total Number of Registered Births. | Total Number of cases notified. | | Total Number of deaths from Puerperal Sepsis. | Number of Births attended by midwives. | Cases notified in practices of midwives. | | Deaths from Puerperal Sepsis amongst midwives' cases. |
|---|---|---|---|---|---|---|---|---|
| | | Puerperal Fever. | Puerperal Pyrexia. | | | Puerperal Fever. | Puerperal Pyrexia. | |
| 1921.. .. .. .. | 25,191 | 80 | — | 34 | 11,300 | 18 | — | 5 |
| 1922.. .. .. .. | 23,775 | 57 | — | 35 | 10,884 | 17 | — | 6 |
| 1923.. .. .. .. | 23,172 | 67 | — | 36 | 10,246 | 16 | — | 6 |
| 1924.. .. .. .. | 21,993 | 55* | — | 34 | 10,218 | 16* | — | 5 |
| 1925.. .. .. .. | 21,533 | 62 | — | 25 | 10,164 | 18 | — | 5 |
| 1926.. .. .. .. | 21,703 | 63 | 74‡ | 30 | 8,869† | 23 | 17‡ | 8 |
| 1927.. .. .. .. | 21,123 | 41 | 197 | 24 | 8,699† | 9 | 46 | 5 |
| 1928.. .. .. .. | 22,665 | 63 | 177 | 42 | 8,596† | 15 | 35 | 6 |
| 1929.. .. .. .. | 23,331 | 58 | 188 | 27 | 8,655† | 14 | 40 | — |
| 1930.. .. .. .. | 24,840 | 82* | 224* | 55 | 7,727§ | 16§ | 41§ | 6§ |

* These figures relate to periods of 53 weeks.
† Middlesex cases only.
‡ From 1st October, 1926.
§ Middlesex cases, excluding those occurring during the last quarter of the year in the Borough of Ealing and the Urban Districts of Edmonton, Tottenham and Willesden.

*Ophthalmia Neonatorum.*—Among the 447 notifications of sending for medical assistance for various conditions affecting newly-born infants are included 209 on account of inflammation of, or discharge from, babies' eyes. This is a decrease of 25 upon the corresponding figure for 1929. In 154 instances the practitioners consulted were of the opinion that the condition present was not ophthalmia neonatorum. In the remaining 55 cases, notifications of ophthalmia neonatorum were received.

Enquiries have been made into all cases of inflammation of, or discharge from, infants' eyes occurring in the practices of certified midwives, by officers either of the County Council or of the local sanitary authorities under the special arrangements made following upon the issue of the Public Health (Ophthalmia Neonatorum) Regulations, 1926. From these enquiries it has been learned that there was complete recovery without injury to vision in every case.

*Visits of Inspection.*—The number of visits made by the Council's inspectors of midwives during 1930 was as follows :—

| | |
|---|---|
| Visits to midwives who had notified their intention to practise | 844 |
| ,, midwives who had not notified | 26 |
| ,, women not certified under the Midwives Act | 8 |
| ,, patients' homes in connection with cases of ophthalmia, &c. | 90 |
| ,, other persons in connection with investigations under the Midwives Acts | 144 |
| ,, premises in connection with the registration of nursing homes | 265 |
| ,, ante-natal clinics and welfare centres | 25 |
| ,, scattered homes | 102 |
| Total | 1,504 |

*Action taken.*—In consequence of complaints made by the husband of a patient who had died as a result of post-partum hæmorrhage, the Maternity and Child Welfare Committee in October had under consideration a report on the conduct of two midwives who were in attendance on the case. The Committee considered that a *prima facie* case of negligence had been established and decided to report the facts to the Central Midwives Board with a view to consideration by their Penal Cases Committee as to whether a case had been made out which required an answer from the midwives. The Board decided to cite the midwives to appear before them at a special meeting held on January 8th, 1931. At this meeting the charges alleged against the midwives were investigated, but after due consideration of all the evidence, the Board considered the charges to be not proved.

During the year, four certified midwives received verbal cautions from the Council's inspectors of midwives.

*Post-Certificate Instruction of Midwives.*—Progress in obstetrical knowledge and technique makes it desirable that midwives, actively engaged in the conduct of their profession, should have opportunity of undergoing, from time to time, post-certificate instruction, with a view to keeping abreast of modern developments. With this object in view, arrangements have been made whereby Middlesex midwives are able to avail themselves of the very comprehensive courses of post-certificate instruction, originally organized by the London County Council for the benefit of midwives practising in their area. A very small charge is made to each midwife who attends, and the two County Councils share the deficit of the cost of the courses on the basis of user. During 1930 two separate types of course were arranged. These comprised a series of lectures dealing with many aspects of obstetrical work and the care of the newly-born, which were held during the early part of the year, and a series of practical ante-natal and post-natal demonstrations conducted at various general or special hospitals during the latter months of the year. These courses have proved extremely popular with midwives and there is no doubt that they have been the means of satisfying a very general need. Below are set out details of the courses of lectures and demonstrations which have been arranged for 1931.

## Post-Certificate Lectures to Midwives on General Midwifery

*Programme of Lectures*, 1931.

| Address. | Date. | Lecturer. | Subject of Lecture. |
|---|---|---|---|
| The Midwives' Institute, 12, Buckingham Street, Strand. | Jan. 8 ... | Professor F. J. Browne, F.R.C.S. (University College Hospital). | The rôle of the midwife in the prevention of maternal mortality. No fee will be charged for this lecture. |
| St. Margaret's Hospital, Leighton Road, N.W.5. | Jan. 27 ... | Miss D. M. Howard, L.M.S.S.A. | (*a*) Ophthalmia neonatorum. (*b*) Digestive disturbances in infants. |
| | Jan. 29 ... | Do. | Repetition of lecture of January 27. *Note.*—The wards of this hospital will be open on Jan. 26, 27, 29, 30, for midwives to see special cases in the wards at 5 p.m. No fee will be charged for these lectures or demonstrations. |
| City of London Maternity Hospital, 102, City Road, E.C.1. (*Note.*—Cases of interest in the wards will be shown after each lecture at this hospital.) | Jan. 16 ... | J. A. Willett, Esq., M.D. ... | *Ante-partum hæmorrhage.*—Varieties, signs, symptoms, diagnosis and treatment, midwife's action whilst awaiting medical aid. Difference between slight A.P.H. and the "show." |
| | Jan. 30 ... | Do. ... | *Post-partum Hæmorrhage.*—Varieties, signs, symptoms and treatment, midwife's action whilst awaiting medical aid. Proper douche apparatus and its use. |
| | Feb. 13 ... | Do. ... | Some causes of still-birth and neo-natal death. |
| | Feb. 27 ... | Sydney Owen, Esq., M.D. ... | Injuries to the infant during birth. Demonstration in urine testing. |
| | Mar. 13 ... | Do. ... | Care of the infant—infant feeding, rashes in infants. |
| | Mar. 27 ... | Miss E. E. Greaves (Matron of Hospital). | Practical hints in midwifery and the nursing of lying-in mothers, including the use of various apparatus. |
| East End Maternity Hospital, 396, Commercial Road, E.1. (*Note.*—Cases of interest in the wards will be shown after each lecture at this hospital.) | Jan. 12 ... | W. H. F. Oxley, Esq., M.R.C.S., L.R.C.P. | The toxæmias of pregnancy, with practical demonstration of the examination of the urine. |
| | Jan. 26 ... | Do. | The detection of abnormalities during pregnancy. |
| | Feb. 9 ... | Do. | When and why to call the doctor during labour. |
| | Feb. 23 ... | Do. | The part of the midwife in prevention of sepsis. |
| | Mar. 9 ... | Miss M. Anderson (Matron of Hospital). | Practical hints in midwifery and the nursing of lying-in mothers. |
| | Mar. 23 ... | Do. | The use of various apparatus by the midwife. The use of antiseptics. |
| General Lying-in Hospital, York Road, S.E.1. | Jan. 14 ... | H. G. Taylor, Esq., M.A., M.B., B.Ch., F.R.C.S. | Ante-natal hygiene—its influence on labour and the puerperium. |
| | Jan. 21 ... | Do. | Placenta prævia and accidental hæmorrhage. |
| | Jan. 28 ... | Do. | The toxæmias of pregnancy. |
| | Feb. 4 ... | Do. | Abnormal labour: its prevention, recognition and the midwife's part in its treatment. |
| The Mothers' Hospital, 153-163, Lower Clapton Road, E.5. (*Note.*—Cases of interest in the wards will be shown after each lecture at this hospital.) | Jan. 13 ... | Lady Barrett, C.H., C.B.E., M.D., M.S. | The care of the pregnant woman. |
| | Jan. 27 ... | Miss Margaret Basden, M.D., F.R.C.S. | The after-effects on the mother of badly managed confinements. Demonstrations. |
| | Feb. 10 ... | Miss Ethel Hall, M.D., B.S. ... | Problems that may arise during labour. |
| | Feb. 24 ... | Do. | *Ante-partum hæmorrhage.*—Varieties, signs, symptoms, diagnosis and treatment, midwife's action whilst awaiting medical aid. Difference between slight A.P.H. and the "show." |
| | Mar. 10 ... | Miss Alice Bloomfield, M.D., F.R.C.S. | *Puerperal sepsis.*—Varieties and the part which the midwife may take in preventing it. |
| | Mar. 24 ... | Do. | Care of the infant—infant feeding, rashes in infants. |
| St. Alfege's Hospital, 48, Vanbrugh Hill, Greenwich, S.E.10 | April 22 | W. D. Wiggins, Esq., M.R.C.S., L.R.C.P. | General diseases affecting labour and the puerperium. |
| | April 29 | Do. | Obstructed labour. |
| St. Giles' Hospital, Brunswick Square, Peckham Road, Camberwell, S.E.5. | April 8 ... | E. W. G. Masterman, Esq., M.D., F.R.C.S. | Puerperal sepsis. |
| | April 15... | Do. | Hæmorrhage in pregnancy and labour. |

| Address. | Date. | Lecturer. | Subject of Lecture. |
|---|---|---|---|
| St. John's Home, Watson Street, Deptford, S.E. | Feb. 11 ... | H. Scott Edwards, Esq., M.R.C.S., L.R.C.P. | The physiology of labour. |
| | Feb. 18 ... | Do. | Pressure effects and minor disturbances of pregnancy and their alleviation. |
| St. Mary Abbot's Hospital, Marloes Road, Kensington, W.8. (Demonstrations of cases of interest in the hospital wards will be given at each lecture.) | Jan. 21 ... | A. Remington Hobbs, Esq., M.R.C.S., L.R.C.P. | *Puerperal Sepsis*— Comprising what the disease really is, including— (*a*) Pathology and treatment; |
| | Feb. 4 ... | Do. | (*b*) Symptoms and signs of morbidity during early years of a woman's life. |
| | Feb. 18 ... | Do. | |
| | Mar. 4 ... | Do. | |
| | Mar. 18 ... | Do. | (*c*) Signs and symptoms of diseases of sepsis and prevention during pregnancy. |
| | April 1 ... | Do. | (*d*) Prevention of sepsis during labour and during the puerperium. |
| St. Thomas's Hospital, Westminster Bridge, S.E.1. | Feb. 24 ... | A. J. Wrigley, Esq., M.D., F.R.C.S. | Diseases of the heart and lungs in association with pregnancy, labour and the puerperium. |
| | Mar. 3 ... | Do. | Certain infectious diseases in association with pregnancy, labour and the puerperium (*e.g.*, syphilis, gonorrhœa, influenza and scarlet fever). |
| | Mar. 10 ... | Do. | The use of drugs in midwifery; their properties, action and dosage; indications for their administration. |
| | Mar. 17 ... | Do. | Labour as a normal function; its conduct; aids to its attainment; its prophylactic aspect. |

*Ante-Natal and Post-Natal Demonstrations to Midwives*, 1931.

*Course* 1.—Conducted by Mr. F. Roques, F.R.C.S., at Royal Northern Hospital, Holloway Road, N.7.

*Course* 2.—Conducted by Mr. C. M. Gwillim, M.D., F.R.C.S., and Sister Doubleday, at 77, Southampton Street, Camberwell, S.E.5.

*Course* 3.—Conducted by Mr. A. Remington Hobbs, M.D., M.R.C.P., M.C.O.G., at St. Mary Abbot's Hospital, Marloes Road, Kensington, W.8.

*Course* 4.—Conducted by Mr. C. M. Gwillim, M.D., F.R.C.S., at General Lying-in Hospital York Road, S.E.1.

*Course* 5.—Conducted by the honorary medical staff at Queen Charlotte's Maternity Hospitalt Marylebone Road, N.W.1.

*Course* 6.—Conducted by Mr. C. D. Read, M.B., F.R.C.S., at Westminster Hospital, Broad Sanctuary, S.W.1.

*Course* 7.—Conducted by Mr. J. A. Willett, M.D., M.R.C.P., at City of London Maternity Hospital, 102, City Road, E.C.1.

*Course* 8.—Conducted by Mr. A. J. Wrigley, F.R.C.S., at St. Thomas's Hospital, S.E.1.

*Course* 9.—Conducted by Mr. T. D. Marr, M.B., Ch.B., and Sister F. L. Turner, at St. John's Home, Watson Street, Deptford, S.E.8.

*Course* 10.—Conducted by Miss Margaret Basden, M.D., F.R.C.S., and Lady Barrett, C.H., C.B.E., M.D., M.S., at the Mothers' Hospital, 153–163, Lower Clapton Road, E.5.

*Course* 11.—Conducted by Mr. W. H. F. Oxley, M.R.C.S., L.R.C.P., and Miss B. M. Page, at East End Maternity Hospital, 396, Commercial Road, E.1.

*Payment of Fees to Medical Practitioners.*—Under the Rules of the Central Midwives Board, a midwife is required to send for medical assistance in all cases of illness or abnormality in the course of pregnancy, labour, or lying-in, and the doctor sent for is entitled to the payment of a fee by the County Council, in accordance with a scale, and subject to certain conditions, laid down by the Ministry of Health. The County Council has power to recover from the patient or her husband, the amount so paid, or such proportion of it as the financial circumstances of the case justify.

In the case of inflammation of, or discharge from, infants' eyes, this right of recovery by the County Council has been waived, in accordance with the suggestion of the Ministry of Health, in order that there may be no temptation for midwives to delay calling in a doctor in cases of apparently trivial affection of the eyes.

The table on the next page furnishes details as to the cost to the County Council of this service during the past five years. It should be noted that while the financial particulars refer to the financial

years, the numbers of notifications and claims are those received during the corresponding calendar years.

FEES PAID TO MEDICAL PRACTITIONERS UNDER SECTION 14 OF THE MIDWIVES ACT, 1918.

| Year. | A. Number of notifications of sending for Medical Aid. | B. Number of Claims for Fees received. | Percentage of B. to A. | C. Total amount due to Doctors in respect of cases attended by them during financial year. | | | | D. Income received from Patients in respect of Doctors' fees. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | £ | *s.* | *d.* | | £ | *s.* | *d.* |
| 1925 ... | 1,615 | 720 | 44·6 | 1925–26 | 885 | 10 | 0 | 1925–26 | 396 | 3 | 11 |
| 1926 ... | 1,689 | 730 | 43·2 | 1926–27 | 832 | 19 | 0 | 1926–27 | 303 | 5 | 6 |
| 1927 ... | 1,760 | 723 | 41·1 | 1927–28 | 937 | 1 | 6 | 1927–28 | 330 | 1 | 8 |
| 1928 ... | 1,862 | 849 | 45·6 | 1928–29 | 1,066 | 15 | 6 | 1928–29 | 360 | 7 | 4 |
| 1929 ... | 1,940 | 973 | 50·2 | 1929–30 | 1,314 | 11 | 6 | 1929–30 | 482 | 6 | 3 |
| 1930 ... | 1,881 | 1,023 | 54·4 | 1930–31 | 1,188 | 11 | 6 | 1930–31 | 453 | 1 | 6 |

*Compensation to Midwives.*—Section 2 (i) of the Midwives and Maternity Homes Act, 1926, states that where a midwife has been suspended from practice in order to prevent the spread of infection she shall, if she is not herself in default, be entitled to recover from the local supervising authority such amount by way of compensation for loss of practice as is reasonable in the circumstances of the case.

During the year, 16 claims for compensation were put forward by midwives who had been suspended from practice, either totally or partially, for varying periods in order to avoid spread of infection. The claims were considered by the Maternity and Child Welfare Committee, and were deemed to be reasonable having regard to the circumstances of the cases. Sums, amounting in all to £60 11*s.* 6*d.*, were paid by way of compensation.

## NURSING HOMES.

Until October 1st, 1930, the County Council was the authority responsible for the administration of the Nursing Homes Registration Act, 1927, throughout the whole of the County. As recorded in an earlier section of this report the Minister of Health made an Order under which, as from October 1st, 1930, the Borough Council of Ealing, and the Urban District Councils of Edmonton, Tottenham and Willesden became local supervising authorities under the Midwives Acts for their respective districts. In addition to homes reserved for maternity cases only, many nursing homes receiving other types of case accept maternity patients. At many homes also the proprietor, or one or more of her staff, holds the certificate of the Central Midwives Board. If the County Council had remained the authority responsible for the administration of the Nursing Homes Registration Act in the districts mentioned, the practice of certified midwives resident in nursing homes in these areas would have been subject to the supervision of two different authorities, a state of affairs which inevitably would have led to overlapping and confusion. Accordingly, the County Council delegated to the Borough of Ealing, and the Urban Districts of Edmonton, Tottenham and Willesden its powers in these districts under the Nursing Homes Registration Act, and the councils of the districts became the authorities responsible for the administration of the Act, as from the date upon which they became local supervising authorities under the Midwives Acts. On 30th September, 1930, there were, in these four districts, 38 registered nursing homes, while two applications for registration were under consideration.

The administration of the Nursing Homes Registration Act is delegated by the County Council to the Maternity and Child Welfare Committee of the Council, and the County Medical Officer, Deputy and Assistant County Medical Officers, and the two Inspectors of Midwives have been duly authorized to carry out inspections, &c., under the terms of the Act.

On the 1st January, 1930, there were registered with the County Council under the Act a total of 159 nursing homes. During the course of the year a further 33 applications for registration were received, and in each case the premises concerned were inspected by the County Medical Officer, or Assistant County Medical Officer, accompanied by one of the Council's Inspectors of Midwives. Information as to the action taken by the County Council is set out in the table on page 57, which also shows that at the close of 1930 there remained 132 nursing homes on the register of the County Council.

In accordance with section 6 of the Act, exemption from registration was granted in respect of 33 institutions not carried on for profit. Four of these were nursing homes belonging to charitable organisations, the remainder being general and local hospitals supported by voluntary contributions. The Ministry of Health exempted from registration four homes carried on in accordance with the principles of Christian Science.

The following table gives information regarding the registration of lying-in homes under the Middlesex (General Powers) Act from 1922 to June 30th, 1928, and of nursing homes under the Nursing Homes Registration Act from July 1st, 1928, until December 31st, 1930.

## Lying-in Homes.

| Year. | On Register at beginning of year. | | Applications received. | Applications voluntarily withdrawn. | Registrations refused. | Registrations granted. | Applications held over or postponed. | Removed from Register on account of death or removal, or voluntarily. | Registration cancelled. | On Register at close of year. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Homes. | Approved accommodation (beds). | | | | | | | | Number. | Accommodation (beds). |
| 1922 .. .. .. | — | — | 106 | 4 | 4 | 98 | — | 4 | Nil | 94 | 293 |
| 1923 .. .. .. | 94 | 293 | 25 | 4 | — | 21 | — | 9 | Nil | 106 | 339 |
| 1924 .. .. .. | 106 | 339 | 31 | 4 | 4 | 22 | 1 | 18 | Nil | 110 | 359 |
| 1925 .. .. .. | 110 | 359 | 27 | 3 | 2 | 18 | 5 | 10 | Nil | 118 | 366 |
| 1926 .. .. .. | 118 | 366 | 19 | 2 | 6 | 13 | 3 | 12 | 1 | 118 | 365 |
| 1927 .. .. .. | 118 | 365 | 33 | 3 | — | 29 | 4 | 21 | 1 | 125 | 391 |
| 1928 (1st half) .. | 125 | 391 | 10 | 2 | 1 | 10 | 1 | 10 | 1 | 124* | 388 |

## Nursing Homes.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1928 (2nd half) .. | 124† | 388 | 56 | 1 | 1 | 49 | 6 | 18 | 2 | 153 | 863 |
| 1929 .. .. .. | 153 | 863 | 41 | 5 | 1 | 27 | 14 | 21 | — | 159 | 911 |
| 1930 .. .. .. | 159 | 911 | 33 | 5 | 4 | 31 | 7§ | 58‡ | — | 132 | 802 |

* On Register on 30th June, 1928.

† On Register on 1st July, 1928.

‡ Including 26 homes handed over to Ealing Borough Council.
2 ,, ,, ,, Edmonton Urban District Council.
1 home ,, ,, Tottenham ,, ,, ,,
9 homes ,, ,, Willesden ,, ,, ,,

§ Including 2 applications handed over to Edmonton ,, ,, ,,

The following table shows the number of registered nursing homes in each sanitary district for which the County Council is the local authority for the administration of the Nursing Homes Registration Act.

The figures in brackets indicate the number of homes devoted either wholly or partly to the reception of maternity cases.

| District. | Number of Nursing Homes on Register at end of 1930. | | Approved accommodation (beds) at end of 1930. |
|---|---|---|---|
| *Urban—* | | | |
| Acton (*Borough*) | 2 | (2) | 9 |
| Brentford and Chiswick | 6 | (4) | 35 |
| Enfield | 5 | (4) | 20 |
| Feltham | 2 | (1) | 10 |
| Finchley | 13 | (9) | 67 |
| Friern Barnet | 1 | (1) | 1 |
| Hampton | 2 | (2) | 11 |
| Hampton Wick | — | — | — |
| Harrow | 4 | (4) | 23 |
| Hayes and Harlington | 1 | (1) | 3 |
| Hendon | 15 | (13) | 82 |
| Heston and Isleworth | 5 | (4) | 17 |
| Hornsey (*Borough*) | 23 | (16) | 201 |
| Kingsbury | — | — | — |
| Ruislip-Northwood | 4 | (3) | 9 |
| Southall-Norwood | 1 | (1) | 6 |
| Southgate | 5 | (5) | 39 |
| Staines | 2 | (1) | 23 |
| Sunbury | 2 | — | 11 |
| Teddington | 5 | (3) | 26 |
| Twickenham (*Borough*) | 8 | (7) | 62 |
| Uxbridge | 3 | (2) | 33 |
| Wealdstone | 1 | (1) | 7 |
| Wembley | 10 | (7) | 31 |
| Wood Green | 2 | (2) | 7 |
| Yiewsley and West Drayton | — | — | — |
| *Rural—* | | | |
| Hendon | 10 | (6) | 69 |
| South Mimms | — | — | — |
| Totals | 132 | (99) | 802 |

## Maternity and Child Welfare Scheme.

The County Council is the authority for maternity and child welfare in 12 of the 32 sanitary districts which, at the close of 1930, made up the administrative County, namely, the Urban Districts of Feltham, Friern Barnet, Hampton Wick, Hayes and Harlington, Kingsbury, Ruislip-Northwood, Staines, Sunbury, Uxbridge and Yiewsley and West Drayton, and the Rural Districts of Hendon and South Mimms. In all of these districts the County Council is also the authority for elementary education.

The outstanding feature in the development of the County Council's maternity and child welfare scheme during the past five years has been the gratifying increase in the number of attendances made both by infants and by expectant mothers. In the case of infants the total number of attendances in a year has practically doubled during the period under review, while the number of expectant mothers coming for ante-natal treatment and advice has far more than doubled. The following table summarises in statistical form the growth of the maternity and child welfare services during the past five years.

Attendances at Welfare Centres—Home Visits by Health Visitors.

| —— | 1926. | 1927. | 1928. | 1929. | 1930. |
|---|---|---|---|---|---|
| *Welfare Centres*— | | | | | |
| Number of sessions held | 1,417 | 1,482 | 1,549 | 1,634 | 2,207 |
| New cases attending— | | | | | |
| Expectant mothers | 270 | 303 | 388 | 614 | 670 |
| Infants under 1 year of age | 1,293 | 1,228 | 1,542 | 1,976 | 2,557 |
| Children (1 to 5 years) | 715 | 713 | 694 | 945 | 1,288 |
| Total attendances made— | | | | | |
| Expectant mothers | 1,432 | 1,699 | 1,876 | 2,190 | 2,862 |
| Mothers attending with infants and children | 31,799 | 34,007 | 41,186 | 46,317 | 60,005 |
| Infants | 20,280 | 20,811 | 27,104 | 31,661 | 41,223 |
| Children (1 to 5 years) | 22,714 | 25,346 | 28,369 | 28,974 | 35,233 |
| Total attendances | 76,225 | 81,863 | 98,535 | 109,142 | 146,045 |
| Average attendance of infants and children each session | 30·34 | 31·15 | 35·81 | 37·11 | 36·38 |
| *Home visits made by Health Visitors*— | | | | | |
| Ante-natal visits | 1,941 | 2,483 | 2,415 | 2,559 | 2,714 |
| Visits to infants under 1 year | 13,090 | 13,857 | 16,779 | 18,432 | 18,742 |
| Visits to children (1 to 5 years) | 17,655 | 19,501 | 21,184 | 19,921 | 20,508 |
| Total home visits | 32,686 | 35,841 | 40,378 | 40,912 | 41,964 |
| Total number of visits to individual families | 21,545 | 23,991 | 27,972 | 30,543 | 32,074 |

The tables on the following pages give particulars regarding the situation and times of sessions of the Council's ante-natal clinics and welfare centres, with the name of the medical officer in charge of each.

In order to cope with the large increase in the work devolving upon the County Council under their maternity and child welfare scheme, it has been necessary to open a considerable number of new welfare centres, which now number 36, as compared with 23 at the end of 1925. Eleven of these new centres were opened in the years previous to 1930, and details are given in the respective Annual Reports. During 1930, centres were opened at Stanwell and Harmondsworth. Owing to congestion caused by increased attendances it was found necessary to hold sessions twice weekly at Headstone and Kingsbury instead of once a week as previously. Sessions are now held thrice weekly at Hayes (Botwell), twice weekly at Hayes (Townfield Road), Headstone, Kingsbury, Uxbridge and Yiewsley, and once a week at the remaining centres.

Ante-natal examination of expectant mothers has always been included in the County Council's scheme, but latterly, the number of women seeking ante-natal advice has increased so greatly as to render the inauguration of special *ad hoc* ante-natal sessions desirable, and at the beginning of 1930 such sessions were being held once a month at Ashford, Feltham, Friern Barnet, Hayes (Townfield Road), Headstone, Staines, Sunbury, Uxbridge and Yiewsley. During the year arrangements were made for the holding of a monthly ante-natal session at Harlington, while the ante-natal attendances at Hayes (Townfield Road) increased to such an extent as to make it necessary to hold a second session each month at this centre.

COUNTY COUNCIL ANTE-NATAL CLINICS.

| Sanitary District. | Address of Centre. | Day and Time of Ante-Natal Session. | Medical Officer in Charge. | First Session held. |
|---|---|---|---|---|
| *Urban—* | | | | |
| Feltham .. .. | The Hut, Council School .. .. .. | Last Monday in each month, 9.30 a.m... .. | Dr. Wilson .. | 30th September, 1929. |
| Friern Barnet .. | Congregational Church Hall, Oakleigh Road, Whetstone | Last Friday in each month, 2.30 p.m. .. | Dr. Daniel .. | 27th September, 1929. |
| Hayes and Harlington | Townfield Road Council School, Hayes.. .. | Last Monday in each month, 9.30 a.m., and the Wednesday following the last Monday in each month, 9.30 a.m. | Dr. Shelley .. | 30th September, 1929. |
| | Village Hall, Cherry Lane, Harlington.. .. | Last Monday in each month, 9.30 a.m... .. | Dr. Campbell .. | 24th November, 1930. |
| Staines .. .. | Wesleyan Church School Room, Clarendon Road, Ashford | Last Wednesday in each month, 9.30 a.m. .. | Dr. Wilson .. | 25th September, 1929. |
| | The Hut, Kingston Road Council School, Staines | Last Thursday in each month, 9.30 a.m. .. | Dr. Campbell .. | 26th September, 1929. |
| Sunbury .. .. | Congregational Church Hall, Rooksmead Road | Last Thursday in each month, 9.30 a.m. .. | Dr. Heddy .. | 26th September, 1929. |
| Uxbridge .. .. | The Hut, Dunstans, High Street, Uxbridge .. | Second Wednesday in each month, 9.30 a.m... | Dr. Glyn-Jones.. | Transferred from Uxbridge Urban District Council on 1st April, 1928. |
| Yiewsley and West Drayton | Central Hall, Fairfield Road, Yiewsley .. | Last Tuesday in each month, 9.30 a.m. .. .. | Dr. Ruddy .. | 24th September, 1929. |
| *Rural—* | | | | |
| Hendon .. .. | Headstone, St. George's Church Hall .. .. | Last Tuesday in each month, 9.30 a.m. .. | Dr. Burn .. | 31st December, 1929. |

COUNTY COUNCIL WELFARE CENTRES.

| Sanitary District. | Address of Welfare Centre. | Day of Meeting (2.30 p.m.). | Medical Officer in Charge. |
|---|---|---|---|
| *Urban—* | | | |
| Feltham .. .. | Feltham, The Hut, Council School .. | Tuesday .. | Dr. Wilson |
| | Bedfont—Public Hall, New Road .. | Monday .. | Dr. Wilson. |
| | Hanworth—Village Hall .. .. | Friday .. | Dr. Wilson. |
| Friern Barnet .. | Congregational Church Hall, Bellevue Road. | Wednesday .. | Dr. Poole. |
| | Freehold Social Institute, Hampden Road. | Friday .. | Dr. Poole. |
| | Congregational Church Hall, Oakleigh Road, Whetstone. | Tuesday .. | Dr. Daniel. |
| Hampton Wick .. | Baptist Mission, Upper Teddington Road. | Friday .. | Dr. Heddy |
| Hayes and Harlington | Queen's Hall, Hayes .. .. .. | Monday, Thursday, Friday | Dr. Shelley. |
| | Townfield Road Council School, Hayes | Tuesday, Wednesday | Dr. Shelley. |
| | Harlington — Village Hall, Cherry Lane. | Tuesday .. | Dr. Campbell. |
| Kingsbury .. .. | Church Hall, Bacon Lane .. .. | Monday, Wednesday | Dr. Moir. |
| Ruislip-Northwood .. | Eastcote—Church Hall .. .. | Wednesday .. | Dr. Hignett. |
| | Northwood — Methodist Assembly Room, Hallowell Road. | Tuesday .. | Dr. Hignett. |
| | Ruislip—Conservative Sports Club, Sharps Lane. | Thursday .. | Dr. Hignett. |
| | South Ruislip, British Legion Hall, West End Road. | Monday .. | Dr. Glyn-Jones. |
| Staines .. .. | Staines, The Hut, Kingston Road Council School. | Wednesday .. | Dr. Campbell. |
| | Ashford — Wesleyan Church School Room, Clarendon Road. | Thursday .. | Dr. Wilson. |
| | Stanwell, Women's Institute Hall .. | Monday .. | Dr. Campbell. |
| Sunbury .. .. | Congregational Church Hall, Rooksmead Road. | Wednesday .. | Dr. Heddy. |
| | Ashford Common — The Pavilion, Spelthorne Sports Club. | Wednesday .. | Dr. Wilson. |
| | Upper Halliford, Church Hall .. | Thursday .. | Dr. Heddy. |
| | Shepperton Green—Council School .. | Monday .. | Dr. Heddy. |
| Uxbridge .. .. | Colham Green—Mission Room .. | Wednesday .. | Dr. Glyn-Jones. |
| | Harefield—Memorial Hall .. .. | Thursday .. | Dr. Norrington. |
| | Hayes End — Salem School, High Road. | Friday .. | Dr. Moir. |
| | Hillingdon West, St. Andrew's Hall .. | Thursday .. | Dr. Glyn-Jones. |
| | Ickenham, Village Hall .. .. | Tuesday .. | Dr. Norrington. |
| | Uxbridge, High Street .. .. | Tuesday, Friday | Dr. Glyn-Jones. |
| Yiewsley and West Drayton | Yiewsley, Central Hall, Fairfield Road | Tuesday, Friday | Dr. Ruddy. |
| | *Harmondsworth, Old School .. | Thursday .. | Dr. Campbell. |
| *Rural—* | | | |
| Hendon .. .. | Edgware — Congregational Church Hall. | Friday .. | Dr. Burn. |
| | Harrow Weald—Memorial Hall .. | Thursday .. | Dr. Burn. |
| | Headstone—St. George's Church Hall | Tuesday, Wednesday | Dr. Burn. |
| | Pinner—Free Church Lecture Hall, Payne's Lane. | Friday .. .. | Dr. Norrington. |
| South Mimms .. | Potters Bar—Village Hall .. .. | Wednesday .. | Dr. Daniel. |
| | South Mimms — St. Giles's Parish Room. | Thursday .. | Dr. Daniel. |

* Opened on 24th April, 1930.

As pointed out in many previous reports, welfare centres are primarily designed to afford mothers adequate opportunities of obtaining reliable medical advice regarding their own health and that of their children. In certain cases the family circumstances are such as to make it impossible to carry out the advice given with regard to diet, &c., without assistance. To meet this difficulty milk, dried or fresh, and various proprietary articles, are provided at cost price or less, or even free of charge in cases of necessity.

The following table gives information as to the cost of this service during the *financial* year ended 31st March, 1931.

| 1930–31. | Amount. lbs. | Cost Price. | Contributed by Mothers. | Charge on Scheme. |
|---|---|---|---|---|
| | | £ *s.* *d.* | £ *s.* *d.* | £ *s.* *d.* |
| Dried milk .. .. .. .. | 30,478 | 2,041 17 2 | 1,801 9 3 | 240 7 11 |
| Virol or similar substance .. .. | 5,119 | 288 1 11 | 266 13 9 | 21 8 2 |
| Cod-liver oil, malt, &c. .. .. | 1,479 | 252 16 0 | 191 11 2 | 61 4 10 |
| Fresh milk .. .. .. .. | — | 1,310 8 2 | — | 1,310 8 2 |
| | Totals .. | 3,893 3 3 | 2,259 14 2 | 1,633 9 1 |

The net cost to the County Council shows an increase of £227 16*s.* 8*d.*, on the net cost for the financial year 1929–30. Comparative figures for the past five years are as follows :—

| —— | 1926–27. | 1927–28. | 1928–29. | 1929–30. | 1930–31. |
|---|---|---|---|---|---|
| | £ *s.* *d.* | £ *s.* *d.* | £ *s.* *d.* | £ *s.* *d.* | £ *s.* *d.* |
| Cost price of articles .. .. | 2,291 18 5 | 2,194 11 7 | 2,707 6 10 | 3,329 19 10 | 3,893 3 3 |
| Charge on scheme .. .. | 1,311 4 3 | 1,246 1 9 | 1,415 12 5 | 1,405 12 5 | 1,633 9 1 |

*Ophthalmic Treatment.*—The services of the two school oculists, appointed by the Education Committee for the treatment of school children, also are available for the treatment of certain cases referred from welfare centres. Mothers, if able, are required to pay the cost price of any spectacles prescribed, together with a fee of 1*s.* for the examination and subsequent fitting of the glasses.

*Dental Treatment.*—Expectant and nursing mothers and children below school age in need of dental treatment on account of oral sepsis or dental caries are referred to one of the dental clinics established by the Middlesex Education Committee. Mothers are expected to pay for, or contribute towards the cost of any dental treatment which is provided, and the following scale of charges has been authorized :—

*Children under the Age of Five Years.—*

1*s.* 6*d.* for complete treatment.

*Expectant and Nursing Mothers.—*

Fillings, 2*s.* 6*d.* each tooth.

Extractions, 2*s.* 6*d.* each tooth (maximum charge, 15*s.*).

Scaling, 5*s.*

Taking impression and fitting dentures, 5*s.*

Dentures, cost price to Council.

During the financial year, 1930–31, the sum contributed towards the cost of dental treatment including the supply of dentures, was £239 1*s.* 2*d.*, while the actual cost of the dentures only was £160 19*s.* 9*d.*

The following table gives particulars of the dental work which has been carried out during the year under the Council's Maternity and Child Welfare scheme :—

| —— | Mothers. | Children under 5 years of age. |
|---|---|---|
| Number inspected .. .. .. | 370 | 313 |
| ,, of attendances made .. .. | 1,673 | 434 |
| ,, treated .. .. .. .. | 213 | 238 |
| ,, extractions (gas) .. .. | 1,459 | 174 |
| ,, ,, (local anæsthetic) .. | 990 | 367 |
| ,, other treatment (fillings, &c.) | 1,807 | 470 |
| ,, dentures completed .. .. | 188 | — |

The above figures are very considerably greater than the corresponding numbers for 1929. Whilst the increasing appreciation by mothers of the dental facilities provided by the Council, and the great growth in the numbers attending the centres are responsible in large part for this increase, it is also augmented by the addition of the dental work undertaken by the County Council on behalf of the Urban District Councils of Southall-Norwood, Southgate and Teddington which are autonomous maternity and child welfare authorities, whose districts are included within the elementary education area of the County. Reference was made to these agreements in last year's annual report, but the arrangements only came into force in Southgate in November, 1929, and in Southall-Norwood in April, 1930. The agreements with Southall-Norwood and Southgate provide for the treatment both of mothers and children under school age, but that with Teddington provides for the treatment of children only.

*Treatment of Ophthalmia Neonatorum.*—The scheme of the County Council for the treatment of ophthalmia neonatorum, occurring in infants living in the maternity and child welfare area for which the County Council is responsible, provides for :—

(1) The admission of infants suffering from the disease, accompanied by their mothers, to St. Margaret's Hospital (London County Council Special Hospitals Service).

(2) The domiciliary nursing of cases.

During 1930, three infants were admitted to St. Margaret's Hospital, suffering from ophthalmia neonatorum, while five others were nursed in their own homes by the County Council's health visitors, all of whom have received special practical instruction in the nursing of cases of ophthalmia. All the above cases recovered without injury to vision.

*Treatment of Puerperal Fever and Puerperal Pyrexia.*—Following the issue of the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, a scheme was prepared to provide specialist and hospital services in connection with the treatment of cases of puerperal fever or puerperal pyrexia occurring in the maternity and child welfare area of the County Council. The scheme contains the following provisions :—

(1) The appointment of J. M. Wyatt, Esq., F.R.C.S., Obstetric Physician to St. Thomas's Hospital, to act as Consultant Obstetric Physician on behalf of the County Council when a second opinion is required.

(2) The bacteriological examination of specimens of lochia or blood at the Lister Institute of Preventive Medicine.

(3) The reception of cases of puerperal infection into the special department of the North-Western Hospital (London County Council Special Hospitals Service) under the care of Dr. Wyatt.

(4) The provision of trained nurses for the home nursing of cases of puerperal sepsis.

Dr. Wyatt's advice was sought on 13 occasions during the year. In nine cases he visited the patients at their own homes, in consultation with the medical practitioners who had notified the cases. Twenty-one women were admitted, under the Council's arrangements with the London County Council, to wards reserved for the treatment of puerperal infection at the North-Western Hospital, under the care of Dr. Wyatt. Of these four died, and the remainder made good recoveries.

*Provision of Midwives.*—As a whole the County is adequately supplied with midwives, but there are some areas not so favourably situated in this respect as others. To meet the needs of the residents in the districts and neighbourhood of Ruislip-Northwood and of Yiewsley and West Drayton, it was found necessary some years ago to appoint two whole-time midwives, and these officers have continued to practise throughout the year. In the districts of Kingsbury and Stanwell local enterprise has resulted in the formation of nursing associations which employ trained nurse-midwives. In these

instances, however, the associations have difficulty in obtaining sufficient income from voluntary sources to meet their obligations, and, in view of the fact that they provide a much-needed midwifery service in their respective areas, the County Council contributed a grant of £25 to each during 1930.

*Maternity Beds.*—The County Council has very adequate provision for dealing with abnormal or difficult cases of confinement in its maternity area. In connection with its central ante-natal clinic there is an arrangement by which cases of difficulty, seen at the clinic and requiring admission to hospital, are referred to St. Thomas's Hospital and dealt with therein, the County Council paying for their maintenance at an agreed rate. With regard to cases of puerperal fever and puerperal pyrexia, mention of the Council's arrangements has been made on page 63 of this report. In addition to the above two classes, there remain the cases of women who have not attended the Council's ante-natal clinics, and only at the time of labour are found by the doctor called in to be such as to require the resources which are only available at a properly equipped hospital. The fact that the County Council since 1st April has been in control of the various hospitals previously belonging to the Guardians has greatly simplified the problem of dealing with this type of case. As will be seen on reference to the section of this report dealing with the Local Government Act, accommodation for maternity patients in the County Council's hospitals and institutions is available for all parts of the County, and although at present this is administered under the Acts for the Relief of the Poor, and, moreover, is too limited in amount to provide for all the women who would prefer to enter a hospital for their confinement, even though this is likely to be normal in character, yet provides ample facilities for dealing with cases of urgency and complication.

With regard to normal cases, the County Council has to rely on the accommodation in its hospitals, just referred to, and the need for extension of provision is fully appreciated.

Information as to the maternity work carried out in the County Council's hospitals and institutions is set out on page 43 of this report.

*Central Consultative Ante-natal Clinic.*—Monthly sessions of the Central Consultative Ante-natal Clinic have been held under the direction of Dr. J. S. Fairbairn at the Public Health Department, 10, Great George Street, Westminster, throughout the year 1930. During this period, thirty-eight women were referred to the clinic, and made a total of forty-six attendances.

The majority of the cases seen were referred from one or other of the County Council's local welfare centres, those sent up direct by private medical practitioners being in a considerable minority.

Ten women were seen on account of smallness of the pelvis, or a suspected disproportion between the maternal passages and the fœtal parts, while in four others the fœtus showed abnormality in its position relative to the maternal structures. In twelve of these cases it was decided that the women might safely be left at home for labour to take place by natural means, in one instance external version being performed at the clinic. Each of these mothers was safely delivered of a living child. One woman was admitted to St. Thomas's Hospital for confinement, and she also became the mother of a living infant. The remaining case has left the maternity and child welfare area of the County Council.

Nine cases of toxæmia of pregnancy were seen at the clinic, nearly double the corresponding figure for 1929. This type of case places great responsibility upon an obstetrician, since delay in instituting treatment, or error of judgment in deciding upon the necessity for obstetrical interference, may result in the death both of the mother and child. In six of the above cases the condition was not severe, and general treatment under medical supervision at the women's own homes resulted in the birth of a living child. Two cases of more grave prognosis were admitted to St. Thomas's Hospital for induction of premature labour. In both cases a living child was born, and the mother passed through a normal puerperium. One woman left the maternity and child welfare area of the County Council prior to the date of her confinement.

Three women attended the clinic on account of ante-natal hæmorrhage. In two cases this was considered to be due to threatened abortion. One woman was admitted to St. Thomas's Hospital for observation and after a short stay was discharged, as there was no recurrence of hæmorrhage. She was subsequently delivered of a living premature child, which, unfortunately, did not long survive birth. The other case was less severe, and measures for increased rest at home resulted in the absence of further hæmorrhage and the subsequent birth of a living child. The third case was considered to be one of possible placenta prævia, and, owing to the temporary closure of St. Thomas's Hospital wards, was admitted to Queen Charlotte's Hospital for confinement, where a living child was born.

Three cases of pregnancy complicated by heart disease were seen at the clinic. Two of these were admitted to St. Thomas's Hospital for their confinement, while the third has left the County Council's maternity and child welfare area.

Among the remaining cases, Dr. Fairbairn's advice was sought on account of pregnancy complicated by recent pneumonia, hernia and severe varicose veins, severe vaginismus, as to the advisability of establishing lactation after confinement, and on account of suspected death of the fœtus in utero. With reference to the last-named, X-ray examination was carried out at St. Thomas's Hospital in order to assist in establishing the diagnosis, and arrangements were made for the

woman to be admitted for removal of the uterine contents, but a few days before she should have gone in, abortion took place at home and she was subsequently admitted to the Hillingdon Institution.

The foregoing summary of cases dealt with during the year clearly indicates that the Central Consultative Ante-natal Clinic continues to fulfil adequately the purpose for which it is designed. Practically the whole of the cases seen were of a nature requiring the considered opinion and advice of a skilled obstetric and gynæcological consultant and such a service provides a very important element in the County Council's maternity and child welfare scheme.

*Investigation of Maternal Deaths.*—Mention was made in last year's annual report of the fact that Dr. J. M. Wyatt had been appointed to act, on behalf of the County Council, as expert investigator of any maternal deaths occurring in the Council's maternity and child welfare area. During 1930 Dr. Wyatt made enquiries into thirteen cases. A detailed report was submitted to the County Medical Officer in each instance and transmitted to the Ministry of Health for consideration by the Special Maternal Mortality Committee appointed by the Minister in 1928.

## Children Act (Part I).

As from 1st April, 1930, the work of administration of Part I of the Children Act, 1908, which previously had been a function of the Boards of Guardians, devolved upon Maternity and Child Welfare Authorities. This part of the Act provides that a person, undertaking for reward the nursing and maintenance of one or more infants under the age of seven years apart from their parents, or having no parents, shall give notice in writing to the local authority within forty-eight hours of the reception of any such infant, and shall also give notice of the death or removal of any such infant. The local authority is empowered to appoint infant protection visitors to visit nurse children, and the premises in which they are kept, in order to satisfy themselves as to the suitability of the foster-mother, the accommodation provided and the arrangements generally, and to give any necessary advice or directions as to the nursing and maintenance of the infants.

The local authority may fix the number of infants under the age of seven years which may be kept in any dwelling in respect of which a notice has been received, and any person keeping any infant in excess of this number is guilty of an offence under this part of the Act.

A justice or the local authority may order a visitor appointed under the Act to remove an infant to a place of safety if it is kept—

(*a*) In any premises which are overcrowded, dangerous or insanitary ; or

(*b*) By any person who, by reason of negligence, ignorance, inebriety, immorality, criminal conduct, or other similar cause, is unfit to have care of it ; or

(*c*) By any person or in any premises in contravention of the provisions of Part I of the Act.

The County Council decided that, so far as its own maternity and child welfare area was concerned, the visitation of homes and foster parents should be carried out by the Council's staff of health visitors and school nurses who already were engaged on home visitation of mothers and infants in connection with the activities of the local welfare centres.

The late Guardians of Staines, Uxbridge, Barnet, Hendon and Kingston Unions furnished information regarding 102 children in the care of 82 foster parents. In addition to this number, during the year 76 notifications from foster parents relating to 142 children were received, whilst notices of removal of 78 children were received from 40 persons. Of these 78 children, 2 were legally adopted by the foster parents ; 1 attained the age of 7 years ; 1 died ; and 2 were removed to a place of safety (*i.e.*, a Poor Law Institution) by order of the Committee, owing to unsatisfactory conditions of the homes and the neglect or ignorance of the foster parents concerned.

On receipt of a notification that a foster-mother has accepted for reward the care of a nurse-chld,i a preliminary visit to the foster-parents and home is made by one of the Council's health visitors, who forwards a detailed report as to the suitability of the applicants and the environmental conditions of the home. This is submitted to the Committee for their guidance in coming to a decision as to whether or not permission to retain the child shall be granted, and to aid them in fixing the maximum number of nurse children, which may be received into any particular home.

Subsequently, periodic visits to the home are paid by the health visitor to ensure that the conditions remain satisfactory, and that the infants and children are being properly cared for.

Between April 1st and December 31st, 1930, health visitors and school nurses, in their capacity of infant life protection officers, paid 133 first visits and 452 subsequent visits to foster-parents.

## Contributions to Voluntary Associations.

On the coming into operation of the Local Government Act, 1929, grants which previously had been paid by the Ministry of Health to voluntary associations providing maternity and child welfare services ceased. Section 101 of the Act imposed upon the councils of counties and county boroughs the duty of preparing schemes to secure the payment of future contributions by the councils concerned to such voluntary associations as operated within their areas.

The scheme prepared by the Middlesex County Council and approved by the Ministry of Health made provision for payment by the County Council in each of the three financial years, 1930–31, 1931–32 and 1932–33 of the following contributions to the associations named :—

| Name of Association. | Amount of annual contribution. |
|---|---|
| | £ s. d. |
| Harrow, Wealdstone and District War Memorial Maternity Hostel, 10, College Road, Harrow. | 118 0 3 |
| Hornsey Deanery Association for Preventive and Rescue Work, "Beechwood," Eastern Road, Fortis Green, N.2. | 254 6 2 |
| Kingsbury District Nursing Association, "Eden," Mount Drive, Kingsbury | 25 0 0 |
| Maddison Memorial Hostel, Maddison Lodge, Osterley Road, Osterley. (Woman's Mission to Women.) | 221 14 1 |
| Mothercraft Training Society, Cromwell House, Highgate Hill, N.6 .. | 1,227 10 11 |
| Mothers' Rest Home, 110, Erskine Hill, Hampstead Garden Suburb, N.W. 11 | 107 13 0 |
| St. Helena's Convalescent Home for Mothers and Babies, Thorverton Road, Cricklewood, N.W.2. | 340 18 5 |
| Stanwell District Nursing Association, Clear View, Stanwell, near Staines.. | 25 0 0 |
| Wright-Kingsford Home for Children, Granville Road, North Finchley, N.12. (Shaftesbury Society.) | 974 17 2 (for 1930–31) *999 12 2* (*for 1931–32 and 1932–33*) |

Several conditions are attached to the payment of contributions by the County Council, as follows :—

(i) That the Council are satisfied as to the efficiency of the maternity and child welfare services provided by the association, and that such services are being used by a reasonable number of those persons for whom the services are provided.

(ii) That no reduction or alteration of such services is made without the consent of the Council

(iii) That such services, and any premises in which those services are carried on, are open to inspection at all reasonable times by any officer of the Council, duly authorized by the Council, and by any officer of the Ministry of Health, appointed for that purpose by the Minister.

(iv) That the association sends to the Council in each year a copy of the annual report of the association on the maternity and child welfare work of the previous year, together with a statement of the accounts of the association for that year relating to such work and a copy of the auditor's certificate thereon, and furnishes the Council from time to time with such other information relating to the maternity and child welfare services provided by the association and the expenditure thereon as the Council may reasonably require.

Prior to the first payment of contribution under the scheme, the premises of the several voluntary associations were visited by officers of the Public Health Department of the County Council, and detailed information obtained as to the precise nature of the maternity and child welfare services rendered.

## Infectious Diseases.

### Notifiable Diseases other than Tuberculosis.

Smallpox.—The prevalence of this disease in England and Wales has shown a tendency to diminution since the peak year of 1927. The fall would appear, however, to be due to the gradual growth of a comparatively immune population in those parts of the country (particularly Durham, certain areas of the midlands and South Wales) in which the disease had been for some years endemic. In south-east England, including London and the surrounding counties, which until recent years had been almost entirely free from invasion, the incidence of smallpox has continued to show a steady increase. During 1929, in London and the home counties over 3,000 cases were notified and this number was more than doubled in 1930.

The following table gives information regarding the incidence of smallpox and the migration of the disease to the London district since 1922 :—

| Year. | In England and Wales. | In London and neighbourhood.* |
|---|---|---|
| | Cases. | Cases. |
| 1922 .. .. .. .. .. | 973 | 78 |
| 1923 .. .. .. .. .. | 2,485 | 21 |
| 1924 .. .. .. .. .. | 3,765 | 32 |
| 1925 .. .. .. .. .. | 5,365 | 19 |
| 1926 .. .. .. .. .. | 10,146 | 9 |
| 1927 .. .. .. .. .. | 14,767 | 29 |
| 1928 .. .. .. .. .. | 12,420 | 517 |
| 1929 .. .. .. .. .. | 10,967 | 3,475 |
| 1930 .. .. .. .. .. | 11,491 | 6,954 |

* Including the Counties of Middlesex, Surrey, Essex, Kent, Berkshire, Buckinghamshire and the County Boroughs of Croydon and East and West Ham.

From this table it will be observed that, whereas in 1927 the London district was practically free from smallpox, by 1930 the disease had assumed such proportions in southern England as to make the metropolitan area responsible for considerably over half the total number of cases of smallpox in the whole country.

During 1930, in Middlesex, 271 cases of smallpox were notified, and of this number 131 (or nearly one-half) occurred in the Urban District of Tottenham. The disease throughout has remained of the mild type with which physicians have become so familiar in recent years, and which by its benignity has made the population forgetful of the terrible scourge of Asiatic smallpox which has swept over the country in past years and heedless of the only true safeguard—vaccination.

With regard to the vaccinal condition of the 271 Middlesex cases which occurred in 1930, in 19 instances information as to vaccination either was absent or subject to so much doubt as to be valueless. Of the remaining 252 cases, 204 (81 per cent.) had never been vaccinated or had been vaccinated for the first time within a few days of the onset of disease and too late to counteract infection. Forty-seven (18·5 per cent.)cases occurred in persons over the age of 12 years who had been vaccinated in infancy and not revaccinated, and in only one instance was smallpox reported in a person who had been vaccinated and revaccinated, and in this instance revaccination had been performed 16 years before.

Smallpox was certified as the cause of death in four instances ; in two of these the victims were 70 years of age and in one smallpox was stated to be a contributory cause of death.

Scarlet Fever.—Scarlet fever exhibited a somewhat undue prevalence in 1930. During the year 5,058 cases were notified, equivalent to a case-rate of 3·24 per 1,000 persons living, the highest incidence recorded since 1922. The disease showed a fairly uniform distribution throughout the County, no particular district being disproportionately affected. Thirty-two of the cases terminated fatally, yielding a case-mortality rate of 0·63 per cent. and a death-rate from scarlet fever of 0·02 per 1,000 persons living. The death-rate from scarlet fever recorded for London, the Great Towns and England and Wales was likewise 0·02 per 1,000.

A consideration of the characteristics of scarlet fever during the last fifty or sixty years reveals the fact that the disease has undergone a very profound change in severity. As recently as the latter part of the nineteenth century, scarlet fever was justly dreaded for the very severe illness which it caused and the heavy toll of life which it took. To quote an example :—in the year 1875 in the City of Liverpool the death rate from scarlet fever was no less than 3·75 per 1,000 persons living. Whether a high incidence of the disease in those times was in part responsible for the high mortality cannot be stated, as the disease was not then notifiable ; but from the clinical records of individual cases which are available and the testimony of medical practitioners who had experience of scarlet fever in the eighties, it is evident that the malignancy of the disease has become very much reduced. Cases of

toxic and septic scarlet fever now are clinical rarities, and the average patient with scarlet fever suffers little more than a temporary inconvenience.

Records relating to Middlesex show that from the beginning of the present century the disease has exhibited considerable fluctuations in incidence from year to year and has tended to show a maximum incidence at intervals of approximately seven years. The wave of periodicity, however, is not so apparent as in the case, for example, of measles. The lowest incidence (1·15 per 1,000) was recorded in the years 1917 and 1918, whilst the highest occurred in 1921 (6·45 per 1,000). As regards the case-mortality in Middlesex the progressively benign character of the disease is apparent from a consideration of the statistics relating to the present century, although by the year 1900 the phenomenal change in type of the disease referred to above was already an accomplished fact. During the first decade of this century the average case-mortality was 1·95, the lowest recorded being 1·30 in 1910. The statistics relating to the decennium 1921–30 are set out below and show that the case-mortality rate for that period averaged only 0·60 per cent., or one-third of that experienced in the period 1901–10 :—

| Year. | Cases. | Deaths. | Case-rate per 1,000 living. | Death-rate per 1,000 living. | Case Mortality per cent. |
|---|---|---|---|---|---|
| 1921 .. .. .. .. | 8,130 | 43 | 6·45 | 0·03 | 0·5 |
| 1922 .. .. .. .. | 5,134 | 55 | 4·06 | 0·04 | 1·1 |
| 1923 .. .. .. .. | 2,378 | 16 | 1·87 | 0·01 | 0·7 |
| 1924 .. .. .. .. | 2,321 | 16 | 1·80 | 0·01 | 0·7 |
| 1925 .. .. .. .. | 2,264 | 12 | 1·74 | 0·01 | 0·5 |
| 1926 .. .. .. .. | 2,584 | 10 | 1·95 | 0·01 | 0·4 |
| 1927 .. .. .. .. | 3,063 | 16 | 2·27 | 0·01 | 0·5 |
| 1928 .. .. .. .. | 4,146 | 18 | 2·93 | 0·01 | 0·4 |
| 1929 .. .. .. .. | 4,553 | 20 | 3·12 | 0·01 | 0·4 |
| 1930 .. .. .. .. | 5,058 | 32 | 3·24 | 0·02 | 0·6 |
| Average for the 10 years .. | 3,963 | 23·8 | 2·93 | 0·02 | 0·6 |

Detailed information as to the incidence of, and death-rate from scarlet fever during the year 1930 in each sanitary district in the County is given in the table on page 69.

Diphtheria.—It is a well-recognised fact that diphtheria tends to become prevalent at the same time as an increased incidence of scarlet fever is experienced and, coincident with the prevalence of scarlet fever in 1930, the incidence of diphtheria was higher than in any year since 1922. The number of cases of diphtheria notified during 1930 was 3,412, equivalent to a case-rate of 2·19 per 1,000 persons living. The number of fatal cases was 151, or a case-mortality rate of 4·4 per cent. and a death-rate of 0·10 per 1,000 living. The corresponding death-rate for the whole country was 0·09 per 1,000 living, and for London and for the Great Towns 0·10 per 1,000 living.

The following table indicates the prevalence in the County of diphtheria in each of the last five years :—

| Year. | Cases. | Deaths. | Case-rate per 1,000 living. | Death-rate per 1,000 living. | Case Mortality per cent. |
|---|---|---|---|---|---|
| 1926 .. .. .. .. | 2,651 | 129 | 2·00 | 0·10 | 4·9 |
| 1927 .. .. .. .. | 2,205 | 82 | 1·63 | 0·06 | 3·7 |
| 1928 .. .. .. .. | 2,500 | 112 | 1·76 | 0·08 | 4·5 |
| 1929 .. .. .. .. | 2,857 | 142 | 1·96 | 0·10 | 5·0 |
| 1930 .. .. .. .. | 3,421 | 151 | 2·19 | 0·10 | 4·4 |

The table on page 69 affords information as to the prevalence of diphtheria and the resulting mortality in each sanitary district of the county.

Enteric Fever.—During the year 117 cases of typhoid and paratyphoid fever were notified. Of this number, nine terminated fatally. These figures correspond to a case-rate of 0·07, a death-rate of 0·01 per 1,000 persons living and a case-mortality rate of 7·7 per cent. It is worthy of remark that nearly one-half of the total number of notified cases occurred in the second quarter of the year, *i.e.*, in the spring and early summer months, whereas it is unusual for the enteric group of diseases to exhibit any undue prevalence before the autumn. Twenty-two cases occurred in the Urban District of Hendon and the majority of these, it is stated, were of paratyphoid fever.

The following table gives statistical information regarding enteric fever in each sanitary district of the county.

COUNTY AND DISTRICT RATES, 1930.

*Scarlet Fever, Diphtheria, Enteric Fever.*

| District. | Number of cases notified, with case-rate per 1,000 living. Number of deaths recorded, with death-rate per 1,000 living. | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Scarlet Fever. | | | | Diphtheria. | | | | Enteric Fever. | | | |
| | Cases Notified. | | Deaths Recorded. | | Cases Notified. | | Deaths Recorded. | | Cases Notified. | | Deaths Recorded. | |
| | No. | Rate. | No. | Rate. | No. | Rate. | No. | Rate. | No. | Rate. | No. | Rate. |
| *Urban Districts—* | | | | | | | | | | | | |
| Acton (*Borough*) | 216 | 3·17 | 1 | 0·01 | 103 | 1·51 | 9 | 0·13 | 3 | 0·04 | — | — |
| Brentford and Chiswick | 132 | 2·16 | 1 | 0·02 | 127 | 2·08 | 2 | 0·03 | 4 | 0·07 | 1 | 0·02 |
| Ealing (*Borough*) | 270 | 2·42 | 3 | 0·03 | 128 | 1·14 | 8 | 0·07 | 4 | 0·04 | — | — |
| Edmonton .. | 324 | 4·24 | — | — | 229 | 2·99 | 3 | 0·04 | 3 | 0·04 | 2 | 0·03 |
| Enfield .. .. | 270 | 4·04 | 6 | 0·09 | 237 | 3·55 | 4 | 0·06 | 11 | 0·16 | 1 | 0·01 |
| Feltham .. .. | 14 | 1·05 | — | — | 30 | 2·25 | 1 | 0·08 | 1 | 0·08 | — | — |
| Finchley .. .. | 214 | 3·75 | — | — | 99 | 1·74 | 3 | 0·05 | 5 | 0·09 | — | — |
| Friern Barnet .. | 72 | 3·21 | — | — | 51 | 2·27 | 1 | 0·04 | 3 | 0·13 | — | — |
| Hampton .. | 53 | 4·20 | — | — | 18 | 1·43 | 1 | 0·08 | 2 | 0·16 | 1 | 0·08 |
| Hampton Wick .. | 2 | 0·67 | — | — | 6 | 2·02 | — | — | 1 | 0·34 | — | — |
| Harrow .. .. | 66 | 2·55 | — | — | 12 | 0·46 | — | — | 1 | 0·04 | — | — |
| Hayes and Harlington | 73 | 3·60 | 1 | 0·05 | 34 | 1·68 | 3 | 0·15 | 3 | 0·15 | 1 | 0·05 |
| Hendon .. .. | 347 | 3·53 | 2 | 0·02 | 191 | 1·94 | 7 | 0·07 | 22 | 0·22 | 2 | 0·02 |
| Heston and Isleworth | 211 | 3·03 | 4 | 0·06 | 172 | 2·47 | 19 | 0·27 | 7 | 0·10 | — | — |
| Hornsey(*Borough*) | 354 | 3·83 | 1 | 0·01 | 118 | 1·28 | 4 | 0·04 | 9 | 0·10 | — | — |
| Kingsbury .. | 23 | 1·76 | — | — | 41 | 3·14 | 5 | 0·38 | 5 | 0·38 | — | — |
| Ruislip-Northwood | 27 | 1·87 | 2 | 0·14 | 17 | 1·18 | — | — | 1 | 0·07 | — | — |
| Southall-Norwood | 116 | 3·09 | — | — | 64 | 1·70 | 2 | 0·05 | — | — | — | — |
| Southgate .. | 122 | 2·31 | — | — | 79 | 1·49 | 2 | 0·04 | 5 | 0·09 | — | — |
| Staines .. .. | 50 | 2·92 | 1 | 0·06 | 37 | 2·16 | — | — | — | — | — | — |
| Sunbury .. .. | 24 | 2·06 | — | — | 44 | 3·77 | 1 | 0·09 | — | — | — | — |
| Teddington .. | 46 | 2·00 | 1 | 0·04 | 32 | 1·39 | 2 | 0·09 | — | — | — | — |
| Tottenham .. | 578 | 3·67 | 1 | 0·01 | 550 | 3·49 | 33 | 0·21 | 6 | 0·04 | — | — |
| Twickenham (*Borough*) | 175 | 4·57 | — | — | 134 | 3·50 | 8 | 0·21 | 2 | 0·05 | — | — |
| Uxbridge .. | 142 | 5·00 | 1 | 0·04 | 79 | 2·78 | 2 | 0·07 | 1 | 0·04 | — | — |
| Wealdstone .. | 60 | 2·47 | — | — | 19 | 0·78 | — | — | 1 | 0·04 | — | — |
| Wembley .. | 120 | 2·80 | 2 | 0·05 | 52 | 1·22 | 3 | 0·07 | 3 | 0·07 | — | — |
| Willesden .. | 518 | 2·88 | 3 | 0·02 | 491 | 2·73 | 19 | 0·11 | 10 | 0·06 | 1 | 0·01 |
| Wood Green .. | 236 | 4·37 | — | — | 98 | 1·81 | 4 | 0·07 | 2 | 0·04 | — | — |
| Yiewsley and West Drayton | 23 | 2·00 | — | — | 35 | 3·04 | — | — | — | — | — | — |
| *Rural Districts—* | | | | | | | | | | | | |
| Hendon .. .. | 131 | 3·15 | 1 | 0·02 | 70 | 1·69 | 4 | 0·10 | 2 | 0·05 | — | — |
| South Mimms .. | 23 | 4·51 | 1 | 0·20 | 4 | 0·78 | — | — | — | — | — | — |
| *Staines .. .. | 26 | 3·35 | — | — | 20 | 2·57 | 1 | 0·13 | — | — | — | — |
| THE COUNTY .. | 5,058 | 3·24 | 32 | 0·02 | 3,421 | 2·19 | 151 | 0·10 | 117 | 0·07 | 9 | 0·01 |

The above statistics (except the rates) were supplied by the Registrar-General.

* As the Rural District of Staines was abolished on 31st March, 1930, the statistics given relate only to the first three months of the year.

Dysentery.—Thirteen cases of dysentery were notified in the County during 1930, as compared with 40 cases in 1929, 6 cases in 1928 and 2 in 1927. Of the thirteen notifications, eleven related to the Urban District of Enfield where a limited outbreak of bacillary dysentery, due to organisms of the Flexner type, occurred in a home for destitute boys and was responsible for one death. The circumstances of the outbreak were investigated by a medical officer of the Ministry of Health and were the subject of a special report by the local Medical Officer of Health.

Measles.—This disease is not compulsorily notifiable throughout the county, so that it is not possible to put forward figures directly expressing the incidence of measles in any particular year. The mortality of the disease year by year, however, is an indirect indication of its incidence. Measles is a disease which, with considerable regularity, is prevalent every other year. Following an exceptionally low mortality (six deaths) in 1929, the number of deaths from measles in 1930 rose to 135.

The following table illustrates the biennial fluctuation in the number of deaths attributable to measles in the County during the past 10 years :—

| Year. | Deaths. | Year. | Deaths. |
|---|---|---|---|
| 1921 .. .. .. | 14 | 1926.. .. .. | 160 |
| 1922 .. .. .. | 130 | 1927.. .. .. | 4 |
| 1923 .. .. .. | 35 | 1928.. .. .. | 216 |
| 1924 .. .. .. | 191 | 1929.. .. .. | 6 |
| 1925 .. .. .. | 27 | 1930.. .. .. | 135 |

Ophthalmia Neonatorum.—The number of notifications during 1930 was 136, or a case-rate of 5·48 per 1,000 births. The comparative figures for 1929 were 135 cases and a case rate of 5·79 per 1,000 births. The after-history of all the cases as regards the effect of the disease upon vision is not available ; but in so far as the 55 cases, which occurred in the practice of certified midwives, are concerned, it has been ascertained by enquiry that no injury to vision has resulted in any instance.

Cerebro-Spinal Fever.—Nineteen cases were notified during 1930. The number of notifications during each year since the disease became notifiable in September, 1912, has been as follows :—1913, 7 ; 1914, 8 ; 1915, 115 ; 1916, 53 ; 1917, 54, 1918, 19 ; 1919, 33 ; 1920, 23 ; 1921, 9 ; 1922, 15 ; 1923, 11 ; 1924, 12 ; 1925, 12 ; 1926, 2 ; 1927, 16 ; 1928, 22 ; 1929, 28 ; 1930, 19.

Encephalitis Lethargica.—Twenty-five cases were notified and twenty-eight deaths from the disease were reported. With regard to the disproportion between these figures it is evident that in a number of instances there is failure to notify cases of encephalitis lethargica. In this connection it must be borne in mind that it is only in quite recent years that the disease has been recognisable as a separate clinical entity. The forms which the disease may assume and the difficulties of diagnosis are manifold and it is small wonder, therefore, that many of the slighter cases are missed and that some of the more severe cases are only recognised post-mortem.

Since this disease was made compulsorily notifiable on 1st January, 1919, the number of notifica, tions has been as follows :—1919, 28 ; 1920, 44 ; 1921, 53 ; 1922, 30 ; 1923, 31 ; 1924, 162 ; 1925, 110 ; 1926, 89 ; 1927, 44 ; 1928, 35 ; 1929, 38 ; 1930, 25.

Acute Poliomyelitis.—Nineteen cases were notified, of which seven ended fatally. In previous years the notified cases were :—13 in 1929, 14 in 1928, 26 in 1927 and 45 in 1926.

Acute Polioencephalitis.—Seven cases occurred, five of which were fatal : five cases were notified in the Urban District of Willesden, and of these four died. During the preceding five years the numbers of notifications were :—5 in 1929, 2 in 1928, 4 in 1927, 2 in 1926, 1 in 1925.

Pneumonia.—There were 1,571 cases of *acute primary pneumonia* notified in 1930. This figure represents a decrease of nearly a thousand cases as compared with the previous year, during the early months of which pneumonia had been particularly prevalent.

The number of deaths from *all forms of pneumonia* during 1930 was 902, corresponding to a death-rate of 0·58 per 1,000 living, compared with 1,278 deaths and a death-rate of 0·88 in 1929.

Puerperal Fever and Puerperal Pyrexia.—During the year, 82 cases of puerperal fever (3·3 per 1,000 births) and 224 cases of puerperal pyrexia (9·0 per 1,000 births) were notified. These figures indicate a pronounced increase in incidence of these conditions in comparison with the previous year, when the figures were :—puerperal fever notifications, 58 (2·5 per 1,000 births) ; puerperal pyrexia notifications, 188 (8·1 per 1,000 births).

The number of deaths from puerperal septic conditions during 1930 was 55, equivalent to a maternal mortality rate from sepsis alone of 2·21 per 1,000 births. This figure is distressingly high and is, in fact, the highest on record for the County of Middlesex.

On page 10 appears a diagram illustrating the number of maternal deaths which have occurred in the County as a result of sepsis and of other morbid conditions associated with pregnancy and child-birth since 1911.

Erysipelas.—In last year's report attention was drawn to the fact that this condition is showing a tendency to increase, as evidenced by the number of notifications received. An indication also was given of the possibility of some relationship existing between this disease, scarlet fever and certain severe puerperal infections.

The number of cases of erysipelas notified in 1930 was 568. For the preceding years the figures were :—1929, 521 ; 1928, 525 ; 1927, 351 ; 1926, 395 ; 1924, 386 ; 1923, 326.

Malaria.—Seven notifications of malaria were made, all of which related to cases believed to have been infected abroad.

Cholera, Plague, Relapsing Fever, Continued Fever, Typhus and Anthrax.—No cases of any of these diseases were notified during the year.

## Public Vaccination.

The provisions of Sec. 2 of the Local Government Act, 1929, transferred to the councils of counties and county boroughs functions previously discharged by Boards of Guardians in respect of vaccination. The law as regards vaccination is contained in the Vaccination Acts and the Orders made from time to time thereunder. These latter have recently been consolidated as the Vaccination Order, 1930. The Vaccination Acts require that every child shall be vaccinated before attaining the age of six months, unless, within four months of the date of birth the parent makes a statutory declaration that he conscientiously believes that the operation would be prejudicial to his child's health. Postponement of vaccination on grounds of delicacy of constitution or ill-health may be made on the certificate of a medical practitioner.

For purposes of administration of the Vaccination Acts the County of Middlesex is divided into twenty areas for each of which a vaccination officer is appointed. It is a matter of convenience that vaccination areas should coincide with registration areas, and in all instances this is the case in Middlesex. The duty of a vaccination officer, who is a clerical, not a medical, official is to account for every child born within his district as regards vaccinal condition. Vaccination is carried out free of charge by the public vaccinators, who are medical practitioners employed for this purpose by the County Council. The table on pages 72 and 73 gives particulars of the number of vaccinations performed by these officers at the public expense during the year 1930. It will be observed that 8,038 primary vaccinations were performed : during the year 24,840 infants were born. The ratio between these two figures does not, however, indicate the proportion of infants protected by vaccination, as no account has been taken of infants vaccinated privately, of premature deaths, insusceptibility, removals, &c.

The table on pages 74 and 75 has been compiled from annual returns of vaccination officers and relates to the year 1929, the figures for this year being the latest available. The results may be summarized as follows :—

| | |
|---|---|
| Births registered during 1929 .. .. .. .. .. | 21,258 |
| Infants successfully vaccinated .. .. .. .. .. | 9,361 |
| ,, insusceptible to vaccination .. .. .. .. | 118 |
| ,, who had had smallpox .. .. .. .. .. | — |
| Statutory declarations of conscientious objection .. .. .. | 8,202 |
| Infants died unvaccinated .. .. .. .. .. .. | 907 |
| Still postponed by medical certificates at close of year .. .. | 285 |
| Removals to other districts .. .. .. .. .. .. | 647 |
| Removals to places unknown, &c. .. .. .. .. .. | 825 |
| Otherwise unaccounted for .. .. .. .. .. .. | 913 |

Thus of 21,258 children whose births were registered in Middlesex in 1929, 907 died prematurely, unvaccinated. Of the remainder, 9,479 (46·6 per cent.) were successfully vaccinated or were certified to be insusceptible to smallpox or vaccination. In respect of 8,202 infants (40·3 per cent.) statutory declarations of conscientious objections were made, whilst a further 2,670 infants were not vaccinated for various reasons (postponement on medical certificate, removals, &c.).

VACCINATIONS PERFORMED BY PUBLIC VACCINATORS DURING 1930.

| Name of Poor Law Institution or Vaccination District. | Vaccinations. | | | Successful re-vaccinations. |
|---|---|---|---|---|
| | Under 1 Year. | 1 Year and upwards. | Totals. | |
| *Northern Area—* | | | | |
| Chase Farm Schools | 2 | 1 | 3 | — |
| Edmonton (North) | 145 | 37 | 182 | 13 |
| Edmonton (South) | 111 | 12 | 123 | 16 |
| Enfield (Cockfosters) | 2 | 1 | 3 | 2 |
| Enfield (Cooper's Lane) | — | — | — | — |
| Enfield Highway and Ponders End | 112 | 17 | 129 | 31 |
| Enfield House | — | — | — | — |
| Enfield Town | 94 | 307 | 401 | 183 |
| North Middlesex Hospital and Edmonton House | 2 | 2 | 4 | 13 |
| Tottenham (High Cross) | 82 | 88 | 170 | 89 |
| Tottenham (Lower) | 145 | 62 | 207 | 56 |
| Tottenham (West Green) | 193 | 281 | 474 | 295 |
| *North-Eastern Area—* | | | | |
| Finchley (North) | 31 | 12 | 43 | 22 |
| Finchley (South) | 24 | 16 | 40 | 14 |
| Friern Barnet | 34 | 21 | 55 | 27 |
| Highgate | 71 | 12 | 83 | 20 |
| Hornsey (Harringay) | 197 | 42 | 239 | 36 |
| Southgate | 127 | 21 | 148 | 5 |
| South Mimms | 18 | 3 | 21 | 3 |
| Winchmore Hill | 34 | 7 | 41 | 1 |
| Wood Green | 153 | 27 | 180 | 24 |
| *Central Area—* | | | | |
| Burnt Oak and Watling Estate | 186 | 65 | 251 | 57 |
| Children's Home, Edgware | — | 10 | 10 | — |
| Child's Hill | 37 | 9 | 46 | 28 |
| Edgware, Little Stanmore and Lower Hale | 27 | 7 | 34 | 14 |
| Erskine Hill Residential School (L.C.C.) | — | — | — | — |
| Golders Green and Hampstead Garden Suburb | 40 | 7 | 47 | 2 |
| Great Stanmore and Harrow Weald | 29 | 4 | 33 | 6 |
| Harrow-on-the-Hill | 60 | 5 | 65 | 8 |
| Hendon (Central) and Hendon (West) (part) | 125 | 94 | 219 | 199 |
| Kingsbury | 50 | 31 | 81 | 106 |
| Mill Hill (part) | 57 | 4 | 61 | 57 |
| Pinner | 50 | 2 | 52 | 10 |
| Redhill Hospital | 207 | 33 | 240 | 49 |
| Redhill Institution | 4 | — | 4 | — |
| Wealdstone | 67 | 45 | 112 | 8 |
| Wembley | 108 | 24 | 132 | 13 |
| *Willesden Area—* | | | | |
| Harlesden | 330 | 97 | 427 | 313 |
| Kilburn | 519 | 81 | 600 | 202 |
| Park Royal Hospital | 2 | 1 | 3 | — |
| *Western Area—* | | | | |
| Acton | 225 | 46 | 271 | 72 |
| Cowley and Hillingdon | 167 | 4 | 171 | 3 |
| Ealing (part) and West Twyford | 91 | 9 | 100 | 14 |
| Hanwell and Ealing (part), Greenford and Perivale | 167 | 13 | 180 | 7 |
| Hanwell Residential School (L.C.C.) | — | 88 | 88 | — |
| Harefield | 43 | 1 | 44 | — |
| Hayes | 119 | 18 | 137 | — |
| Hillingdon Institution | 35 | 20 | 55 | 251 |
| Northolt | 41 | — | 41 | — |

| Name of Poor Law Institution or Vaccination District. | Vaccinations. | | | Successful re-vaccinations. |
|---|---|---|---|---|
| | Under 1 Year. | 1 Year and upwards. | Totals. | |
| *Western Area*—continued. | | | | |
| Norwood | 207 | 24 | 231 | 9 |
| Ruislip | 86 | 2 | 88 | 12 |
| Uxbridge and Ickenham | 17 | 1 | 18 | 2 |
| Yiewsley and West Drayton | 28 | 1 | 29 | — |
| *Southern Area*— | | | | |
| Ashford | 91 | 1 | 92 | 4 |
| Ashford Residential School (L.C.C.) | — | 10 | 10 | — |
| Bedfont, Feltham and Hanworth | 111 | 6 | 117 | 1 |
| Brentford and Brentford End | 98 | 8 | 106 | 11 |
| Chiswick | 200 | 21 | 221 | 18 |
| Cranford, Harlington and Harmondsworth (Sipson and Heathrow). | 33 | — | 33 | — |
| Hampton | 54 | — | 54 | 6 |
| Hampton Hill (S. James) | 21 | 1 | 22 | 3 |
| Hampton Wick | 9 | — | 9 | — |
| Harmondsworth (Longford) and Stanwell | 33 | — | 33 | 1 |
| Heston, Isleworth (part) | 179 | 11 | 190 | 15 |
| Isleworth (part) | 139 | 4 | 143 | 14 |
| Laleham and Staines | 29 | 8 | 37 | 3 |
| Shepperton and Littleton | 25 | — | 25 | 6 |
| Staines Institution | — | — | — | — |
| Sunbury | 68 | 14 | 82 | 3 |
| Teddington | 162 | 12 | 174 | 13 |
| Twickenham | 251 | 8 | 259 | 6 |
| West Middlesex Hospital | 14 | 1 | 15 | 2 |
| Totals | 6,218 | 1,820 | 8,038 | 2,398 |

## Return of Vaccination Officers relating to Births registered in 1929.

| Registration Sub-Districts comprised in the Vaccination Officer's District. | Name of Vaccination Officer. | Number of Births registered from 1st January to 31st December, 1929. | Number of these Births duly entered by 31st January, 1931, in Vaccination Register, viz. :— | | | | | Number of these Births which, on 31st January, 1931, remained unentered in the Vaccination Register on account of— | | | Number of these Births remaining on 31st January, 1931, neither duly entered in the Vaccination Register nor temporarily accounted for in the Report Book. | Total number of Certificates of successful Primary Vaccination of children under 14 received during the calendar year 1930. | Number of Statutory Declarations of conscientious objection actually received by the Vaccination Officer during the calendar year 1930. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Successfully Vaccinated. | Insusceptible to Vaccination. | Had Small Pox. | Number in respect of whom Statutory Declarations of conscientious objection have been received. | Died unvaccinated. | Postponement by Medical Certificate. | Removals to other Districts. | Removal to places unknown or which cannot be reached, and cases not having been found. | | | |
| *Northern Area—* | | | | | | | | | | | | | |
| Edmonton ... ... ... | T. E. David ... | 2,121 | 534 | 3 | — | 1,086 | 122 | 43 | 160 | 62 | 111 | 610 | 1,124 |
| Enfield ... ... ... | R. W. Perring ... | 888 | 277 | 4 | — | 411 | 41 | — | 7 | 31 | 117 | 282 | 387 |
| Tottenham, East ... ... | H. J. Roynon ... | 1,185 | 307 | 4 | — | 592 | 64 | 9 | 6 | 21 | 182 | 1,051 | 963 |
| Tottenham, West ... ... | H. J. Roynon ... | 755 | 196 | 1 | — | 410 | 33 | 7 | 8 | 25 | 75 | | |
| *North-Eastern Area—* | | | | | | | | | | | | | |
| Finchley ... ... ... | S. M. Baldock ... | 774 | 317 | 6 | — | 369 | 35 | — | — | 47 | — | 458* | 834* |
| South Mimms ... ... | S. M. Baldock ... | 171 | 70 | — | — | 86 | 9 | — | — | 6 | — | | |
| Hornsey ... ... ... | G. E. Dew ... | 1,007 | 587 | 11 | — | 311 | 36 | 2 | 20 | 15 | 25 | 595 | 304 |
| Southgate ... ... ... | T. E. David ... | 413 | 214 | 4 | — | 148 | 12 | 6 | 5 | 11 | 13 | 292 | 158 |
| Wood Green ... ... ... | R. W. Perring ... | 588 | 226 | 2 | — | 255 | 22 | — | 18 | 19 | 46 | 283 | 249 |
| *Central Area—* | | | | | | | | | | | | | |
| Harrow ... ... ... | F. Moore ... ... | 1,506 | 641 | 13 | — | 774 | 55 | 1 | 8 | 14 | — | 740 | 563 |
| Hendon ... ... ... | A. E. Taylor ... | 1,441 | 786 | 10 | — | 320 | 45 | 20 | 89 | 141 | 30 | 1,170 | 316 |
| Edgware ... ... ... | Miss A. L. Coomber | 262 | 121 | 1 | — | 78 | 10 | 8 | 4 | 4 | 36 | 176 | 98 |
| *Willesden Area—* | | | | | | | | | | | | | |
| Kilburn ... ... ... | W. McAuliffe ... | 1,148 | 634 | 9 | — | 324 | 37 | 29 | 7 | 59 | 49 | 1,382 | 699 |
| Harlesden ... ... ... | W. McAuliffe ... | 1,194 | 590 | 4 | — | 393 | 72 | 19 | 15 | 73 | 28 | | |
| *Western Area—* | | | | | | | | | | | | | |
| Aeton ... ... ... ... | G. F. K. Stidworthy | 806 | 391 | 7 | — | 253 | 46 | 21 | 23 | 35 | 30 | 458 | 318 |
| Ealing ... ... ... | J. C. Baines ... | 1,266 | 615 | 4 | — | 424 | 43 | 5 | 97 | 71 | 7 | 613 | 417 |
| Hayes ... ... ... ... | E. J. Burridge ... | 738 | 309 | — | — | 297 | 35 | 10 | 15 | 26 | 46 | 413 | 397 |
| Uxbridge ... ... ... | A. Finch ... ... | 861 | 541 | 2 | — | 261 | 41 | — | 5 | 11 | — | 621 | 223 |
| Hanwell ... ... ... | Mrs. J. Clough ... | 469 | 216 | — | — | 223 | 15 | 10 | — | 5 | — | 227 | 236 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Southern Area*— | | | | | | | | | | | | | | |
| Brentford ... ... ... | H. C. Gardener ... | 259 | 99 | — | — | 93 | 13 | 19 | 35 | — | — | 116 | 94 |
| Chiswick ... ... ... | H. S. Baker ... | 417 | 229 | 9 | — | 118 | 12 | 15 | 2 | 21 | 11 | 291 | 128 |
| Isleworth ... ... ... | W. J. Barkwill ... | 1,134 | 519 | 7 | — | 376 | 42 | 26 | 82 | 23 | 59 | 524 | 402 |
| Staines ... ... ... | A. H. Bates ... | 363 | 134 | — | — | 138 | 20 | 5 | 19 | 47 | — | 142 | 130 |
| Sunbury ... ... ... | T. G. Cousins ... | 473 | 235 | 1 | — | 158 | 12 | 7 | 3 | 39 | 18 | 315 | 156 |
| Twickenham ... ... ... | W. J. Barkwill ... | 560 | 305 | 11 | — | 146 | 19 | 21 | 14 | 15 | 29 | 335 | 161 |
| Hampton ... ... ... | W. D. Elsam ... | 459 | 268 | 5 | — | 158 | 16 | 2 | 5 | 4 | 1 | 2,050† | 867† |
| | Totals ... | 21,258 | 9,361 | 118 | — | 8,202 | 907 | 285 | 647 | 825 | 913 | 13,144*† | 9,224*† |

* These figures include cases in Barnet registration sub-district.

† These figures include cases in Kingston, Surbiton, Esher and Wimbledon registration sub-districts.

(C 4741)T E 2

## Isolation Hospital Accommodation.

Section 63 of the Local Government Act, 1929, provides that the council of a county shall, as soon as may be after the commencement of the Act, make a survey of the hospital accommodation for the treatment of infectious diseases provided by the council and by the councils of any district wholly or partly within the county. Upon the completion of the survey it is the duty of the county council to prepare, in consultation with the councils of all such districts, a scheme for the provision of adequate hospital accommodation for the treatment of infectious disease in the county. This scheme has to be submitted to the Minister of Health for his approval, and subsection 3 of Section 63 of the Act sets out three provisions which may be included in the scheme. The subsection is as follows :—

> " The scheme may provide—
>
> " (*a*) for the arrangements under which and the terms upon which accommodation in any existing hospital belonging to the council of a district shall be made available for the use of the inhabitants of the county other than those resident in the district ;
>
> " (*b*) for the provision by the county council or by the council of any district of new accommodation for the treatment of infectious disease ;
>
> " (*c*) for embodying arrangements made between the county council or the council of any district and the council of any adjoining county borough for the reception of persons residing in the county borough into hospitals provided by the county council or district council, and for the reception of persons residing within the county into hospitals provided by the council of the county borough."

The Act provides that the Minister, after considering any representations submitted by any council affected, may approve the scheme with or without modifications.

If a county council fail to submit a scheme within six months after being required by the Minister so to do, the Minister, after consulting the county and district councils, may himself make a scheme which shall have effect as if originally drawn up by the county council. Lastly, in the event of a district council failing to provide accommodation in accordance with a scheme approved by the Minister, or otherwise failing to discharge their functions under the scheme, the Minister, after giving the council of the district and the county council an opportunity of being heard, may, if he thinks fit, by order transfer to the county council the functions of the district council under the scheme, and the order may make suitable provision with regard to the transfer, superannuation and compensation of officers affected.

It will be seen that whilst the Local Government Act, 1929, does not suggest the transference to the county council of the existing functions of district councils in respect of the hospital treatment of infectious diseases, it does in fact place a very heavy responsibility upon the county council in that it makes the latter responsible for ensuring that the whole of the county is adequately provided with isolation facilities, and to effect this, if it be considered necessary, authorizes the actual provision of new hospital accommodation by the county council.

In this County adequate provision for the isolation of smallpox has already been made by the County Council (see page 109). Accordingly, it is not necessary for arrangements with regard to smallpox hospital accommodation to be included in the scheme made under Section 63 of the Local Government Act, 1929.

In a memorandum issued by the Ministry of Health it was suggested that the first step the County Council should make in undertaking its survey should be to call upon all district councils, joint hospital boards, &c., to furnish returns in relation to their hospitals, and a suggested questionnaire formed part of the Memorandum. This action has been taken by the County Council, and the information received from authorities having isolation hospital accommodation in the County is set out on pages 76–108. All the hospitals also have been inspected during 1930, either by the County Medical Officer or the Assistant County Medical Officer, and from the information so obtained, together with the particulars submitted by the respective hospital authorities, the summary appearing on page 77 has been prepared. At the close of 1930 the County Council had not yet entered upon the consideration of the returns received from the several local authorities.

There are 15 isolation hospitals in the County providing a total of 932 beds (based upon the standard of measurement approved by the Ministry of Health, *i.e.*, 144 square feet floor space per bed). The estimated population served by these beds is 1,314,208, but this includes 36,370 residents in Surrey who jointly use the Mogden Hospital. On the other hand, four districts in Middlesex, with a total population of 184,812, utilise beds in other Counties and the tenure of some of these beds, it is understood, is uncertain.

## Summary of Isolation Hospital Accommodation in the County.

| District. | Population (Total). (Estimated Mid-Year, 1929.) | | Hospital. | Beds. (Actual.) | Beds. (Ministry of Health basis.) | Beds required (1 per 1,000 population.) | Remarks. |
|---|---|---|---|---|---|---|---|
| 1. Edmonton | 75,000 | 140,100 | Edmonton and Enfield Joint | 160 | 160 | 141 | |
| Enfield | 65,100 | | | | | | |
| 2. Southgate | 49,630 | 71,100 | Southgate | 56 | 42 | 72 | 12 beds reserved for Friern Barnet. |
| Friern Barnet | 21,470 | | | | | | |
| 3. Hornsey | 88,450 | 196,690 | Hornsey, Finchley and Wood Green Joint | 150 | 102 | 197 | |
| Finchley | 54,830 | | | | | | |
| Wood Green | 53,410 | | | | | | |
| 4. Hendon Urban | 83,540 | | Hendon U.D. | 60* | 60 | 84 | * Add West Block of 26 beds in course of construction. |
| 5. Hendon Rural | 32,400 | | Hendon R.D. | 17 | 17 | 33 | |
| 6. Harrow-on-the-Hill | 24,550 | 45,380 | Harrow-on-the-Hill | 56 | 25 | 46 | |
| Wealdstone | 20,830 | | | | | | |
| 7. Willesden | 172,500 | | Willesden Municipal Hospital | 149† | 132 | 173 | † 20 more in immediate future (isolation cubicles). |
| 8. Brentford and Chiswick | 59,040 | 163,040 | Chiswick and Ealing | 121 | 96 | 164 | |
| Ealing | 104,000 | | | | | | |
| 9. Acton | 65,200 | 109.079 | Acton | 95 | 78 | 110 | Wembley and Kingsbury cases received under agreement. |
| Wembley | 35,530 | | | | | | |
| Kingsbury | 8,349 | | | | | | |
| 10. Southall-Norwood | 35,370 | | Southall-Norwood | Perm. 32 / Temp. 20 | 26 / 18 | 36 | |
| 11. Twickenham | 36,070 | | Twickenham Borough | 34 | 32 | 37 | |
| 12. Heston and Isleworth | 63,070 | 99,440 | Mogden Joint | 52 | 48 | 100 | |
| (*Richmond*) | 36,370 | | | | | | |
| 13. Hampton | 12,300 | | Hampton | 20 | 14 | 13 | |
| 14. Uxbridge | 28,200 | 71,596 | Uxbridge Joint | 51 | 46 | 72 | |
| Yiewsley and West Drayton | 11,325 | | | | | | |
| Ruislip-Northwood | 14,120 | | | | | | |
| Hayes and Harlington | 17,951 | | | | | | |
| 15. Staines | 18,748 | 45,603 | Staines Joint | 36‡ | 36 | 46 | ‡ 3 isolation cubicles, 3 scarlet fever beds, to be added in near future. |
| Feltham | 13,871 | | | | | | |
| Sunbury | 12,984 | | | | | | |
| Totals (including *Richmond*) | 1,314,208 | | — | 1,109 | 932 | 1,324 | |

## Isolation Hospital Accommodation.

*Districts having no arrangements within the County for the isolation of infectious diseases.*

| District. | Population (Total). (Estimated Mid-Year, 1929.) | Beds required (at 1 per 1,000 population). | Hospital at present taking Cases. | Remarks. |
|---|---|---|---|---|
| Tottenham .. | 155,000 | 155 | L.C.C. Fever Hospitals .. | A few also go to Southgate Isolation Hospital. |
| South Mimms .. | 4,470 | 5 | Barnet Isolation Hospital | |
| Teddington .. | 22,350 | 23 | Tolworth or Molesey Isolation Hospital | |
| Hampton Wick | 2,992 | 3 | Tolworth Isolation Hospital | |
| Totals .. | 184,812 | 186 | | |

## Detailed Particulars as to each Isolation Hospital in Middlesex.

*Name of Authority:* Enfield and Edmonton Joint Hospital Board.

*Name of Hospital:* Enfield and Edmonton Isolation Hospital.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | World's End, Winchmore Hill, N.21. |
| **Site.** Area in acres .. .. .. .. | 27a. 1r. 19p. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Uncertain, but probable. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Oak fencing, 7 feet high, and hedges. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public—Metropolitan Water Board. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Septic tanks and filter beds. |
| **Heating,** Means of .. .. .. .. | Fires, radiators, gas, electricity. |
| **Lighting** (artificial), Means of .. .. | Electric. |
| **Number of separate buildings** .. .. | 32. |
| Of what materials are they constructed ? .. | Brick and slate (2 timber and corrugated iron; 3 timber and corrugated iron garden sheds; 1 greenhouse. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 9 (1 used as Nurses' Lecture Room). |
| Total number of wards .. .. .. | 14 (Also 8 side-wards for 1 and a cubicle block for 12 patients). |
| Total number of beds, allowing 144 sq. ft. of floor space per bed | 160. |
| Any discharge block ? .. .. .. .. | Yes, but not used as such. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria and enteric fever. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 45; (*b*) 26. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes, power. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type | Yes, Equifex and Thresh. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes, motor (2). |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for outdoor staff ? | Yes. |
| **Is there a resident Medical Officer** ? .. | Yes. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in | ft. in. |
| No. 1 .. .. .. | 2 | 1 | 18 0 | 14 0 | 13 0 |
| | | 2 | 14 0 | 14 0 | |
| ,, 2 .. .. .. | 1 | 1 | 75 0 | 30 0 | 13 0 |
| | | 2 | 75 0 | 30 0 | |
| | | 3 | 15 0 | 15 0 | |
| | | 4 | 15 0 | 15 0 | |
| ,, 3 .. .. .. | 4 | 1 | 75 0 | 30 0 | 13 0 |
| | | 2 | 75 0 | 30 0 | |
| | | 3 | 15 0 | 15 0 | |
| | | 4 | 15 0 | 15 0 | |
| ,, 4 .. .. .. | 1 | 1 | 70 0 | 30 0 | 13 0 |
| | | 2 | 70 0 | 30 0 | |
| | | 3 | 15 0 | 15 0 | |
| | | 4 | 15 0 | 15 0 | |
| ,, 5 .. .. .. | 2 | 1 | 40 0 | 20 0 | 10 6 (at eaves) |
| | | 2 | 40 0 | 20 0 | 20 0 (at ridge) |
| ,, 6 .. .. .. | 3 | 1 | 30 0 | 20 0 | 10 2 (at eaves) |
| | | 2 | 30 0 | 20 0 | |
| | | 3 | 15 0 | 15 0 | 17 0 (at ridge) |
| ,, 7 .. .. .. | 3 | 1 | 70 0 | 30 0 | 13 0 |
| | | 2 | 70 0 | 30 0 | |
| | | 3 | 15 0 | 15 0 | |
| ,, 8 .. .. .. | 4 | 1 | 40 0 | 30 0 | 13 0 |
| | | 2 | 40 0 | 30 0 | |
| | | 3 | 15 0 | 15 0 | |
| | | 4 | 15 0 | 15 0 | |
| ,, 9 .. .. .. | 12 | 1 to 12 | 12 0 each cubicle | 12 0 each cubicle | 13 0 each cubicle |

**B.**

Sanitary districts from which patients are admitted to the hospital.

| Name of District.* | Population of District. |
|---|---|
| Enfield .. .. .. | 74,123 |
| Edmonton .. .. .. | 85,945 |

* When there is room, patients from several adjoining districts are admitted.

*Name of Authority:* SOUTHGATE URBAN DISTRICT COUNCIL.

*Name of Hospital:* SOUTHGATE ISOLATION HOSPITAL.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Tottenhall Road, Palmers Green, N.13. |
| **Site.** Area in acres .. .. .. .. | 9. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Possibly by acquiring sports ground adjoining. (A footpath at present separates it from hospital site.) |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Close-boarded, 6 ft. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public—Metropolitan Water Board. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Water carriage to main sewer. |
| **Heating,** Means of .. .. .. .. | Cubical wards centrally heated by hot water pipes ; other wards by coal-burning stoves. |
| **Lighting** (artificial), Means of .. .. | Electric. |
| **Number of separate buildings** .. .. | 7. |
| Of what materials are they constructed ? .. | Brick—slate roofs. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | All buildings more than 40 ft. from each other and from boundary fence, except lodge and laundry. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4. |
| Total number of wards.. .. .. .. | 8, and 8 cubicle wards. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 34, and 8 cubicle wards of 120 sq. ft. each. |
| Any discharge block ? .. .. .. .. | No. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, typhoid fever, cerebro-spinal fever, erysipelas and puerperal fever. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | The Public Health Committee of the Council consider that the administrative accommodation is adequate. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 12 ; (*b*) 9. |
| Are the kitchen and cooking arrangements adequate ? | Yes, as soon as electric cooker is installed, which is now being done. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Hand at present, but power being installed. |
| Is it adequate ? .. .. .. .. | Yes, when power installed. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes—Thresh steam disinfector. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes—Motor. |
| Is there a **mortuary** at the hospital .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 2 | 1 | 36 0 | 26 0 | 13 0 |
| | | 2 | 26 0 | 24 0 | 13 0 |
| „ 2 .. .. .. | 2 | 1 | 36 0 | 26 0 | 13 0 |
| | | 2 | 36 0 | 26 0 | 13 0 |
| „ 3 .. .. .. | 4 | 1 | 24 0 | 18 0 | 13 0 |
| | | 2 | 24 0 | 18 0 | 13 0 |
| | | 3 | 24 0 | 18 0 | 13 0 |
| | | 4 | 24 0 | 18 0 | 13 0 |
| „ 4 .. .. .. | 8 cubicle wards | | 12 0 | 10 0 | 10 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| | Estimated at middle of 1929— |
| Southgate .. .. .. .. .. .. | 49,630 |
| Friern Barnet (12 beds reserved by agreement) | 19,400 |
| Tottenham (when beds available, which is usually the case) .. .. .. .. | 168,058 |

*Remarks.*

*Re* Tottenham patients :—

72 were admitted during 1928.
65 were admitted during 1929.
66 were admitted during 1930 up to October 22nd.

The hospital site is a very good one and favourably situated on a sloping ground facing north-west —free from obstruction and swept by the prevailing winds.

*Name of Authority :* HORNSEY, FINCHLEY AND WOOD GREEN JOINT ISOLATION COMMITTEE.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Coppetts Road, Muswell Hill, N.10. |
| **Site.** Area in acres .. .. .. .. | 9½. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Probably. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes, completely. |
| State nature and height of fencing .. .. | Iron railings 5 ft. 6 in., with shrubbery, and 6 ft. oak fence beyond. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public Supply—Metropolitan Water Board. |
| Is the supply adequate for all purposes ? .. | Adequate. |
| **Sewage Disposal,** Means of .. .. | Town Council's drainage system. |
| **Heating,** Means of .. .. .. .. | Central heating—partly decentralized. |
| **Lighting** (artificial), Means of ? .. .. | Electric light. |
| **Number of separate buildings** .. .. | 11. |
| Of what materials are they constructed ? .. | Brick. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | All buildings more than 40 ft. from each other and boundary fence. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. | 6 ward blocks. |
| Total number of wards.. .. .. .. | 14 wards and 20 cubicles (cruciform block). |
| Total number of beds, allowing 144 sq. ft. of floor space per bed | 144 sq. ft. for all beds and cots is excessive. Authorized accommodation—103 beds. |
| Any discharge block ? .. .. .. .. | No discharge block but discharge rooms in cubicle block. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, enteric fever, and certain other if accommodation available at time. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Adequate. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | 40 nurses and 33 maids. |
| Are the kitchen and cooking arrangements adequate ? | Adequate. |
| Are telephones installed ? .. .. .. | Internal system and Post Office (2 lines). |
| Is there a **laundry** at the hospital ? Power or hand ? | Power laundry. |
| Is it adequate ? .. .. .. .. | Adequate. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type | Manlove Alliott—Oval type steam disinfector. |
| Is an **ambulance** kept at the Hospital ? Motor or horse ? | No ambulance—cases moved by arrangement with L.C.C. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for outdoor staff ? | No—foreman housed in cottage adjoining. |
| **Is there a resident Medical Officer** .. | Yes. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| "A" .. .. .. | 4 | 1 | 36 0 | 18 0 | 13 0 |
| | | 2 | 36 0 | 18 0 | 13 0 |
| | | 3 | 24 0 | 18 0 | 13 0 |
| | | 4 | 24 0 | 18 0 | 13 0 |
| "B" .. .. .. | 2 | 1 | 58 9 | 18 0 | 13 0 |
| | | 2 | 55 3 | 18 0 | 13 0 |
| "C" .. .. .. | 2 | 1 | 48 0 | 26 0 | 13 4 |
| | | 2 | 48 0 | 26 0 | 13 4 |
| "D" .. .. .. | 2 | 1 | 24 0 | 18 0 | 13 0 |
| | | 2 | 24 0 | 18 0 | 13 0 |
| "E" .. .. .. | 4 | 1 | 13 0 | 12 0 | 13 0 |
| | | 2 | 13 0 | 12 0 | 13 0 |
| | | 3 | 87 0 | 26 0 | 13 0 |
| | | 4 | 65 0 | 26 0 | 13 0 |
| Cruciform .. .. | 20 | | 12 0 | 10 0 | 10 0 |

B.

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. | |
|---|---|---|
| | Local Estimate. | Registrar-General, Mid. 1929. |
| Hornsey .. .. .. .. .. .. .. | 90,500 | 88,450 |
| Finchley .. .. .. .. .. .. | 58,000 | 54,830 |
| Wood Green .. .. .. .. .. .. | 56,395 | 53,410 |

*Name of Authority :* HENDON URBAN DISTRICT COUNCIL.

*Name of Hospital :* ISOLATION HOSPITAL, THE HYDE.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Goldsmith Avenue, Hendon, N.W.9. |
| **Site.** Area in acres .. .. .. .. | 10. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Probably by appropriating land now used for allotments and open spaces. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Oak fencing, height 6 ft. 4 in. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Colne Valley Water Company. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | To district sewer. |
| **Heating,** Means of .. .. .. .. | 1 boiler for Administration Block, Observation Ward and Laundry ; 2 further boilers provide for 3 Ward Pavilions. |
| **Lighting** (artificial), Means of .. .. | Electrical ; gas emergency points. |
| **Number of separate buildings** .. .. | 9 (including lodge and 2 cottages) plus 1.* |
| Of what materials are they constructed ? .. | Brick. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes, except lodge and cottages, which are 25 ft. from fence. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4 plus 1.* |
| Total number of wards .. .. .. | 6 wards, each with a single bed ward ; 8 cubicles in Observation Ward, plus 2 with side wards in course of construction. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed | 60 (in cubicles only 120 sq. ft. allowed ; single bed wards 132 sq. ft.), plus 26 in course of construction. |
| Any discharge block ? .. .. .. .. | No. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, enteric fever, epidemic cerebro-spinal fever, etc., measles and whooping cough when beds are available. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. Adequate extension in course of construction. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 20 ; (*b*) 15 ; excluding Matron and Resident Medical Officer. [In course of construction : (*a*) 8 ; (*b*) 4.] |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes, Post Office to all wards, also internal automatic telephones. |
| Is there a **laundry** at the hospital ? Power or hand ? | Power. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type | Yes, Thresh, low pressure, also fumigating room. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Motor ambulance and disinfecting van. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes, lodge of the Resident Engineer with Porter's Room. |
| Are there **cottages** at the hospital for outdoor staff ? | 2 immediately adjoining, though not on site (connected by internal telephone and fire alarm). |
| **Is there a resident Medical Officer** ? .. | Yes. |

* In course of construction.

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 2, and 2 side wards (single bed) | 1 | 48 0 | 24 0 | 13 0 |
| | | 2 | 60 0 | 24 0 | 13 0 |
| | | 3 | 12 6 | 10 6 | 11 0 |
| | | 4 | 12 6 | 10 6 | 11 0 |
| ,, 2 .. .. .. | Do. | 1 | 48 0 | 24 0 | 13 0 |
| | | 2 | 60 0 | 24 0 | 13 0 |
| | | 3 | 12 6 | 10 6 | 11 0 |
| | | 4 | 12 6 | 10 6 | 11 0 |
| ,, 3 .. .. .. | Do. | 1 | 24 0 | 24 0 | 13 0 |
| | | 2 | 36 0 | 24 0 | 13 0 |
| | | 3 | 12 6 | 10 6 | 11 0 |
| | | 4 | 12 6 | 10 6 | 11 0 |
| ,, 4 .. .. .. | 8 cubicles | | 12 0 | 10 0 | 11 0 |
| ,, 5 (in course of construction) | — | 1 | 72 0 | 24 0 | 13 0 |
| | | 2 | 72 0 | 24 0 | 13 0 |
| | | 3 | 13 2 | 10 0 | 11 0 |
| | | 4 | 13 2 | 10 0 | 11 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Hendon Urban District .. .. .. | Estimated population, 30.6.30— 109,583 |
| Kingsbury Urban District (when there are vacant beds). | — |

*Remarks.*

The hospital has a laboratory equipped for the usual bacteriology of a fever hospital, *i.e.*, diphtheria swabs, urines, cerebro-spinal fluids, cytology of blood, &c.

No operating theatre, but one side-ward is equipped to act as such.

Extension in course of construction should be completed in March, 1931.

*Name of Authority :* Rural District Council of Hendon.

*Name of Hospital :* Isolation Hospital, Honeypot Lane, Stanmore.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Honeypot Lane, Great Stanmore, Middlesex. |
| **Site.** Area in acres .. .. .. .. | 3·213. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | No necessity, although there are fields on each side. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | 6-ft. fencing, west, north and east boundaries. Hedge on south boundary. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Colne Valley Water Company. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Drains to Edgware and Little Stanmore Sewage Farm. |
| **Heating,** Means of .. .. .. .. | Slow combustion stoves. Electric fires available. |
| **Lighting** (artificial), Means of .. .. | Electricity. |
| **Number of separate buildings** .. .. | 6. Administrative Block, Discharge Block. Ward Block, Discharge Observation Block (temporary), Laundry Block, Porter's Lodge. |
| Of what materials are they constructed ? .. | Brick, slate roofs. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | All the permanent buildings, except the Porter's Lodge. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | Ward Block, Discharge Block, Observation Block. |
| Total number of wards.. .. .. .. | 5. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 17. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Diphtheria and scarlet fever. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Not considered so. Alterations pending. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | Number accommodated at present : (*a*) 4 nurses, Matron (1 nurse sleeping in convalescent block) ; (*b*) 2 maids, Janitor and Cook. |
| Are the kitchen and cooking arrangements adequate ? | Estimate for gas to be laid on and gas cooker installed under consideration. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Electric power. |
| Is it adequate ?.. .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Washington-Lyon steam, supplied by Barford & Perkins, Ltd., in 1929. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Two motor ambulances. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for outdoor staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 4 | 1 | 36 0 | 19 6 | 13 0 |
| | | 2 | 36 0 | 19 6 | 13 0 |
| | | 3 | 24 0 | 16 0 | 13 0 |
| | | 4 | 24 0 | 16 0 | 13 0 |

B.

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Rural District of Hendon (comprising parishes of Harrow Weald, Great Stanmore, Little Stanmore, Edgware, Pinner). | 47,318 |

*Remarks.*

Plans are at the present time in course of preparation for alterations and additions to this hospital. It is proposed to add another floor to the existing building, and to provide for one-half of the Ward Block to be utilised for scarlet fever patients, and the other half for diphtheria, thus giving ground-floor and first-floor Wards for each section, with the necessary offices.

The present building was erected with the intention of adding a further floor, and has suitable foundations for the purpose.

*Name of Authority :* Harrow-on-the-Hill Urban District Council.

*Name of Hospital :* Isolation Hospital.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | Rayner's Lane, South Harrow. |
| **Site.** Area in acres .. .. .. .. | 1½. |
| Is there room on the site for extension ? .. | No. |
| Can the site be extended ? .. .. .. | Yes, by taking land from the Sewage Farm, adjoining. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Close-boarded oak pale fencing, 6 ft. 6 ins. high. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Colne Valley Water Co. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Water carriage system draining to Sewage Farm. |
| **Heating,** Means of .. .. .. .. | Central Heating to Scarlet Fever Wards, remainder heated by coal fires. |
| **Lighting** (artificial), Means of .. .. | Gas. |
| **Number of separate buildings** .. .. | 5. |
| Of what materials are they constructed ? .. | Brick, excepting the Emergency Block, which is of hollow brick, timber frame and cement rendered. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 3. |
| Total number of wards.. .. .. .. | 8, including 2 single-bedded wards. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 25. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, enteric fever (erysipelas, influenza, measles, mumps, pneumonia, &c., have also been treated). |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | No. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | Matron, 5 nurses, and 3 maids. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Hand. |
| Is it adequate ? .. .. .. .. | No. Should be altered to mechanical power machine. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Thresh's Steam Disinfector. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1, Scarlet Fever.. | Male | 1 | 24 0 | 26 0 | 13 0 |
| | Female | 2 | 36 0 | 26 0 | 13 0 |
| ,, 2, Diphtheria, or Emergency Ward | Male | 1 | 24 0 | 20 0 | 12 0 |
| | Female | 2 | 24 0 | 20 0 | 12 0 |
| | Single bed (M.) | 3 | 12 0 | 9 0 | 12 0 |
| | Single bed (F.) | 4 | 12 0 | 9 0 | 12 0 |
| ,, 3, Old Block .. | Male | 1 | 24 0 | 18 0 | 13 0 |
| | Female | 2 | 23 0 | 18 0 | 13 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Harrow-on-the-Hill Urban District .. .. .. .. | 24,550 |
| Wealdstone Urban District .. .. .. .. .. | 20,830 |
| On occasions patients are treated from the following districts :— | |
| Hendon Rural District. | — |
| Wembley Urban District. | — |

*Name of Authority:* WILLESDEN URBAN DISTRICT COUNCIL.

*Name of Hospital:* WILLESDEN MUNICIPAL HOSPITAL.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Brentfield Road, Neasden, N.W.10. |
| **Site.** Area in acres .. .. .. .. | 15. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | 9-in. wall, 8-ft. high. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Connected to main sewerage. |
| **Heating,** Means of .. .. .. .. | Steam radiators and open fires. |
| **Lighting** (artificial), Means of .. .. | Electricity. |
| **Number of separate buildings** .. .. | 16. |
| Of what materials are they constructed ? .. | 13 of brick, 3 of wood and corrugated iron. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 7. |
| Total number of wards.. .. .. .. | 26 (including 10 cubicles). |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 130 + 10 in Cubicle Block (total, 140). |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | All the notifiable diseases excepting smallpox, also measles and pemphigus neonatorum. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 55, (*b*) 1. All domestic staff, with 1 exception, sleep out. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Power. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Washington-Lyons. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | Yes. Two. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1, "B" .. .. | 4 | 1 South | 36 0 | 18 0 | 12 0 |
| | | 2 Middle | 24 0 | 18 0 | 12 0 |
| | | 3 Small | 15 0 | 14 0 | 12 0 |
| | | 4 North | 36 0 | 18 0 | 12 0 |
| ,, 2, "C" .. .. | 2 | 1 North | 48 0 | 26 0 | 13 0 |
| | | 2 South | 48 0 | 26 0 | 13 0 |
| ,, 3, "D" .. .. | 2 | 1 North | 75 0 | 26 0 | 13 0 |
| | | 2 South | 75 0 | 26 0 | 13 0 |
| ,, 4, "E" .. .. | 2 | 1 North | 48 0 | 26 0 | 13 0 |
| | | 2 South | 48 0 | 26 0 | 13 0 |
| ,, 5, "F" & "G" | 2 | 1 | 113 0 | 26 9 | 13 0 |
| | | 2 | 113 0 | 26 9 | 13 0 |
| ,, 6, "H" .. .. | 4 | 1 Long | 72 0 | 18 0 | 13 0 |
| | | 2 Middle | 23 9 | 18 0 | 13 0 |
| | | 3 North | 24 0 | 18 0 | 13 0 |
| | | 4 North | 23 0 | 18 0 | 13 0 |
| ,, 7, "M" .. .. | 10 cubicles | | 12 0 | 10 0 | 10 6 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Willesden Urban District .. .. .. .. | 179,368 |

*Remarks.*

Extension to Isolation Hospital.—Application made to Ministry of Health on 28th July, 1930, for sanction to borrow £10,938 for the erection of two additional cubicle blocks each of 10 beds. The Ministry have asked for revised estimates based on the tender it is proposed to accept.

*Name of Authority :* Chiswick and Ealing Hospitals Committee.

*Name of Hospital :* Chiswick and Ealing Isolation Hospital.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | On the Southern Boundary of Ealing. |
| **Site.** Area in acres .. .. .. .. | 4½. |
| Is there room on the site for extension ? .. | Yes. Accommodation can be doubled. |
| Can the site be extended ? .. .. .. | No. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Brick wall from 6 ft. 10 in. to 8 ft. 10 in. in height. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public supply. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Main drainage. |
| **Heating,** Means of .. .. .. .. | Central heating and supplementary coal fires. |
| **Lighting** (artificial), Means of .. .. | Electric lighting. |
| **Number of separate buildings** .. .. | 9. |
| Of what materials are they constructed ? .. | All except one built of brick. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | All except the Administrative Block, which is 20 ft. from the boundary wall, and the Caretaker's Lodge, which is 6 ft. distant. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4. |
| Total number of wards.. .. .. .. | 17. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 82. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, enteric fever, cerebro-spinal fever, puerperal fever. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 20 ; (*b*) 12. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes, throughout whole hospital. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Power. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. High pressure operated from steam boiler. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Ambulance (motor) kept at Central Depot at Town Hall, Ealing. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | Lodge at gate for Porter. One of the gardeners lives at the Annex. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | — | 1 | 83 6 | 25 9 | 14 0 |
| | | 2 | 83 6 | 25 9 | 14 0 |
| | | 3 | 13 9 | 11 4 | 14 0 |
| | | 4* | 13 9 | 11 4 | 14 0 |
| „ 2 .. .. .. | — | 1 | 60 0 | 25 9 | 14 0 |
| | | 2 | 60 0 | 25 9 | 14 0 |
| | | 3 | 13 9 | 11 4 | 14 0 |
| | | 4† | 13 9 | 11 4 | 14 0 |
| „ 3 .. .. .. | — | 1 | 29 9 | 13 3 | 16 0 |
| | | 2 | 18 9 | 12 9 | 16 0 |
| | | 3 | 18 9 | 12 9 | 16 0 |
| | | 4 | 29 9 | 13 3 | 16 0 |
| „ 4 .. .. .. | — | 1 | 38 6 | 18 9 | 13 6 |
| | | 2 | 17 6 | 11 3 | 12 6 |
| | | 3 | 11 3 | 10 2 | 12 6 |

* Upper Ward, 36 ft. 3 in. by 19 ft. 9 in.; Balcony, 17 ft. 3 in. by 6 ft. 6 in.

† Upper Ward, 36 ft. 3 in. by 18 ft.; Balcony, 15 ft. 6 in. by 6 ft. 3 in.

B.

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Borough of Ealing .. .. .. .. .. | 104,000 |
| Urban District of Brentford and Chiswick .. .. | 59,040 |

*Remarks.*

The Isolation Hospital Annex, Clayponds Lane, Brentford, which was formerly the Brentford Urban District Council's Isolation Hospital, is kept ready in case of an epidemic causing a greater demand for beds than are available at the Isolation Hospital proper. The Annex is about 150 yards distant from the main hospital, and therefore it is not easy to manage from this main hospital except in times of emergency, when additional accommodation must be provided. Since the combination of hospitals took place there has been no occasion on which it has been necessary to use the Annex.

A proposal is being considered by the Hospitals Committee for the extension of the Isolation Hospital by providing two wards of 12 to 16 beds each. When this extension is accomplished the buildings of the Annex will cease to be considered as overflow accommodation for the main hospital.

The Annex consists of one block of three wards, the measurements of which are as follows :—

| Ward Number. | Length. | Breadth. | Height. |
|---|---|---|---|
| | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. .. | 36 0 | 17 11 | 12 6 |
| „ 2 .. .. .. .. | 36 0 | 17 11 | 12 6 |
| „ 3 .. .. .. .. | 48 6 | 17 11 | 12 6 |

There is accommodation for 15 beds on the basis of 144 sq. ft. of floor space per bed. There is a small administrative block, which is occupied by the gardener, and in this block there are 4 bedrooms which are available for nursing staff if required. The hospital is in good condition. It is lighted by means of gas, and is heated by means of coal fires. The site extends to 1·3 acres and is not capable of being used for additional buildings.

*Name of Authority :* Acton Town Council.

*Name of Hospital :* Acton Fever Hospital, Wales Farm Road, Acton, W.3.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | Wales Farm Road, Acton, W.3. |
| **Site.** Area in acres .. .. .. .. | 4·5 (approximately). |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Partly brick ; partly close-boarded. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public supply. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Water—carriage. |
| **Heating,** Means of .. .. .. .. | Central heating and open fireplaces in all buildings. |
| **Lighting** (artificial), Means of .. .. | Electric light. |
| **Number of separate buildings** .. .. | 7. |
| Of what materials are they constructed ? .. | 6 of brick and 1 of ferro-concrete blocks. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes, except No. 4, Leamington Park Villas (a house adjoining hospital), used for lodging administrative staff. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4 blocks. |
| Total number of wards.. .. .. .. | 6 ordinary wards, 4 separation wards, and 3 discharge or isolation wards. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 78 beds. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Scarlet fever and diphtheria, and measles when accommodation allows. Arrangements made for nursing enteric cases elsewhere. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) Nursing, 20 ; (*b*) Domestic, 12. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Power. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Washington-Lyons. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor. |
| Is there a **mortuary** at the hospital ? . | Yes. |
| Is there a **porter's lodge** ? .. .. . | No. |
| Are there **cottages** at the hospital for out door staff ? | No. |
| **Is there a resident Medical Officer** ? | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 3 | 1 | 24 0 | 17 0 | 15 0 |
| | | 2 | 24 0 | 17 0 | 15 0 |
| | | 3 | 13 0 | 17 0 | 15 0 |
| ,, 2 .. .. .. | 3 | 1 | 48 0 | 25 0 | 15 0 |
| | | 2 | 36 0 | 25 0 | 15 0 |
| | | 3 | 12 0 | 10 0 | 10 0 |
| ,, 3 .. .. .. | 3 | 1 | 48 0 | 25 0 | 15 0 |
| | | 2 | 36 0 | 25 0 | 15 0 |
| | | 3 | 12 0 | 10 0 | 10 0 |
| ,, 4 .. .. .. | 4 | 1 | 108 0 | 26 0 | 13 0 |
| | | 2 | 96 0 | 26 0 | 13 0 |
| | | 3 | 13 0 | 12 0 | 11 0 |
| | | 4 | 13 0 | 12 0 | 11 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Acton .. .. .. .. .. .. | 65,200 (Estimated 1930). |
| Wembley .. .. .. .. .. .. | 35,530 (Estimated 1929). |
| Kingsbury .. .. .. .. .. .. | 11,000 (Estimated 1929). |

*Remarks.*

The Town Council has entered into agreements for the treatment of the following notifiable infectious diseases at other hospitals, viz. :—

Enteric fever at the Acton Hospital, Gunnersbury Lane, W.3, and the West London Hospital, Hammersmith, W.6.

Puerperal sepsis at Queen Charlotte's Hospital, Goldhawk Road, W.6.

Ophthalmia neonatorum at St. Margaret's (London County Council) Hospital, Leighton Road, N.W.5.

*Name of Authority :* SOUTHALL–NORWOOD URBAN DISTRICT COUNCIL.

*Name of Hospital :* MOUNT PLEASANT.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | Mount Pleasant, Southall. |
| **Site.** Area in acres .. .. .. .. | 3·007. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Close-boarded fence, 6 ft. 6 in. high. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public supply—South West Suburban Water Co. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Drainage connected to Council main sewer. |
| **Heating,** Means of .. .. .. .. | Central heating in all wards, supplemented by open fires or stoves. |
| **Lighting** (artificial), Means of .. .. | Electric light. Metropolitan Electric Supply Co. mains. |
| **Number of separate buildings** .. .. | 8 in all. See details. |
| Of what materials are they constructed ? .. | All brick buildings, except Temporary Ward in timber, and Garage in wood and asbestos. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | All ward blocks are 40 ft. from each other and from the boundary fence. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 3. |
| Total number of wards.. .. .. .. | 7. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 35. |
| | *Note.*—The Council have already decided to add provision for 14 additional beds for diphtheria cases. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Scarlet fever and diphtheria. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | No. |
| | *Note.*—The Council have already decided to add 6 additional bedrooms for the nursing staff. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | At present : 7 Nurses, 1 Matron. |
| | When additional accommodation above-mentioned is provided : 13 Nurses, 1 Matron. |
| Are the kitchen and cooking arrangements adequate ? | For the present staff and patients—Yes. |
| Are telephones installed ? .. .. .. | Yes. G.P.O. and internal. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Power washer and power ironer. |
| Is it adequate ? .. .. .. .. | Yes—for the present. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Thresh. (Steam.) |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 2 Wards and 1 small private Ward | 1 | 36 0 | 26 0 | 13 0 |
| | | 2 | 36 0 | 26 0 | 13 0 |
| | | 3 | 14 0 | 12 0 | 13 0 |
| ,, 2 .. .. .. | 2 | 1 | 18 0 | 24 0 | 13 0 |
| | | 2 | 18 0 | 24 0 | 13 0 |
| ,, 3 .. .. .. | 2 | 1 | 50 0 | 20 0 | 10 0 |
| | | 2 | 50 0 | 20 0 | 10 0 |
| ,, 4, to be provided. (Council already Resolved.) | — | — | Details not yet available. | | |

B.

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. | |
|---|---|---|
| Southall-Norwood Urban District .. | Census (1921) .. .. .. | 30,261 |
| | Reg.-Gen. estimate (1929) .. .. | 35,370 |
| | Local estimate (1930) .. .. | 45,132 |

*Remarks.*

*Details of Separate Buildings.*

1 Diphtheria Block.
1 Scarlet Fever Block.
1 Temporary Block.
1 Administrative Block.
1 Laundry, Mortuary, Disinfecting and Stores Block.
1 Discharge Block.
1 Porter's Lodge.
1 Ambulance Garage.

*Name of Authority :* Borough of Twickenham.

*Name of Hospital :* Borough Hospital, Nelson Road, Twickenham.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | At junction of Hospital Bridge Road and Nelson Road, Twickenham. |
| **Site.** Area in acres .. .. .. .. | 8·5. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes. |
| Is the approach road satisfactory ? .. .. | Thoroughly. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Adjoining entrance gates on main road, 6 ft. 6 in. close-boarded fence. Remainder, quickset hedge with stout wire netting or chestnut fencing, 4 ft. to 5 ft. high. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Metropolitan Water Board. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Connected to Council's sewers. |
| **Heating,** Means of .. .. .. .. | Low pressure hot water and one large Manchester stove in each principal ward. Open fires in convalescent wards. |
| **Lighting** (artificial), Means of .. .. | Electric lighting throughout. |
| **Number of separate buildings** .. .. | 5. |
| Of what materials are they constructed ? .. | Brick. Slate roof. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | (*Vide* remarks on next page as to additional accommodation for convalescent patients at Mereway Hospital.) |
| Total number of blocks or pavilions .. .. | 3. |
| Total number of wards.. .. .. .. | 2 large, 2 small, 6 cubicle, 2 discharge = 12. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 27. |
| Any discharge block ? .. .. .. .. | 3-4 beds (additional to 27 above). |
| What diseases are usually treated ? .. .. | Diphtheria, scarlet fever, enteric, erysipelas, and occasionally complicated measles. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) Nursing, 8 ; (*b*) domestic, 4. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Hand. |
| Is it adequate ? .. .. .. .. | Yes, for present needs. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Washington-Lyons Steam Disinfector. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Motor ambulance. Stationed at Fire Brigade Station and available at any moment. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | No. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1, Principal .. | 4 | 1 | 48 0 | 25 0 | 13 0 |
| | | 2 | 36 0 | 25 0 | 13 0 |
| | | 3 | 13 0 | 13 0 | 13 0 |
| | | 4 | 13 0 | 13 0 | 13 0 |
| ,, 2, Cubicle .. | 6 | 1<br>2<br>3<br>4<br>5<br>6 | The 6 wards on the cubicle system are entirely separated by glass partitions. Each of the 6 cubicles measures :— 12 9 | 10 3 | 10 3 |
| ,, 3, Discharge .. | 2 | 1 | 24 0 | 14 0 | 13 0 |
| | | 2 | 27 0 | 20 0 | 11 6 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Borough of Twickenham only .. .. .. | Estimate of Registrar-General to middle of 1929 .. .. .. .. .. 36,070 |
| (Occasionally patients have been received from neighbouring areas.) | Estimate of Medical Officer of Health to 1930 .. .. .. .. .. 38,000 |

*Remarks.*

The Principal Ward Block, the Discharge Block, the Laundry, Disinfection and Mortuary Block, and the block containing the nurses' home and other administrative accommodation were built about 24 years ago. The Cubicle Block was built 3 years ago. In view of the increasing population of the Borough, the Corporation have retained for use, if necessary, of convalescent patients, the hospital situated at the Mereway, Twickenham, which hospital was formerly used as an Infectious Diseases Hospital. It contains two wards, each 20 ft. by 18 ft. by 14 ft., and would easily accommodate 7 convalescent patients. This is in addition to the number of beds entered on the previous page.

*Name of Authority:* The Borough of Richmond (Surrey), and The Heston and Isleworth Joint Isolation Hospital Committee.

*Name of Hospital:* Mogden Isolation Hospital, Isleworth.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated? .. .. | Isleworth, Middlesex. |
| **Site.** Area in acres .. .. .. .. | 9 acres 1 rood 8 perches. |
| Is there room on the site for extension? .. | Yes. |
| Can the site be extended? .. .. .. | Yes. |
| Is the approach road satisfactory? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in? .. .. | Yes. |
| State nature and height of fencing .. .. | Brick wall on three sides, 6 ft. high. Corrugated iron fence on fourth side, from 5 ft. to 6 ft. high. |
| **Water Supply.** | |
| Public supply or other source? .. .. | Public. |
| Is the supply adequate for all purposes? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Drainage to Local Authorities' Sewage Works. |
| **Heating,** Means of .. .. .. .. | Central heating (water). |
| **Lighting** (artificial), Means of .. .. | Electricity. |
| **Number of separate buildings** .. .. | 8—the 2 porter's lodges are included in this. |
| Of what materials are they constructed? .. | Brick buildings. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4 blocks. |
| Total number of wards.. .. .. .. | 14 wards. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 48 beds. |
| Any discharge block? .. .. .. .. | No proper discharge block. |
| What diseases are usually treated? .. .. | Scarlet fever, diphtheria, enteric fever. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated? | At present Matron, 11 nurses and 8 maids, and there are, over and above this, 6 empty beds available for staff. |
| Are the kitchen and cooking arrangements adequate? | Adequate. |
| Are telephones installed? .. .. .. | Yes. |
| Is there a **laundry** at the hospital? Power or hand? | Yes. Power. |
| Is it adequate? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital? If so, state type. | Yes. Washington-Lyons type. |
| Is an **ambulance** kept at the hospital? Motor or horse? | Two motor ambulances are kept. |
| Is there a **mortuary** at the hospital? .. | Yes. |
| Is there a **porter's lodge**? .. .. .. | 2. |
| Are there **cottages** at the hospital for out-door staff? | No. |
| **Is there a resident Medical Officer?** .. | No, but the Committee is about to appoint one. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1, Scarlet Fever .. | 4 | 1 | 60 0 | 26 0 | Over 13 0 |
| | | 2 | 48 0 | 26 0 | |
| | | 3 | 24 0 | 13 0 | |
| | | 4 | 24 0 | 13 0 | |
| ,, 2, Diphtheria and Enteric | 4 | 1 | 36 0 | 24 0 | Over 13 0 |
| | | 2 | 24 0 | 24 0 | |
| | | 3 | 11 6 | 14 0 | |
| | | 4 | 11 6 | 14 0 | |
| ,, 3, Observation .. | 3 | 1 | 12 0 | 13 0 | 13 0 |
| | | 2 | 12 0 | 13 0 | |
| | | 3 | 13 0 | 24 0 | |
| ,, 4, Convalescent .. | 2, and 1 Day Room | 1 | 24 0 | 24 0 | Over 13 0 |
| | | 2 | 24 0 | 24 0 | |
| | | — | Also Day Room | | |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. |
|---|---|
| Borough of Richmond, Surrey .. .. .. .. | 36,370 (1929 estimate.) |
| Heston and Isleworth Urban District, Middlesex .. .. | 63,070 (1929 estimate.) |

*Name of Authority :* HAMPTON URBAN DISTRICT COUNCIL.

*Name of Hospital :* ISOLATION HOSPITAL.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | Uxbridge Road, Hampton Hill. |
| **Site.** Area in acres .. .. .. .. | 2. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes, up to 7 acres. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | Oak, 6 ft. high. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Metropolitan Water Board. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | To public sewer. |
| **Heating,** Means of .. .. .. .. | Open fires. |
| **Lighting** (artificial), Means of .. .. | Electric. |
| **Number of separate buildings** .. .. | 6. |
| Of what materials are they constructed ? .. | Brick external walls, slated roofs. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 2. |
| Total number of wards.. .. .. .. | 8. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 15. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 7 ; (*b*) 3. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Hand. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Steam. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Horse. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. (Divided) .. | 4 | 1 | 24 0 | 14 0 | 13 0 |
| | | 2 | 24 0 | 25 9 | |
| | | 3 | 24 0 | 14 0 | |
| | | 4 | 24 0 | 14 0 | |
| ,, 2 .. .. Observation Block | 4 | 1 | 12 0 | 10 6 | 10 0 |
| | | 2 | 12 0 | 10 6 | |
| | | 3 | 12 0 | 10 6 | |
| | | 4 | 12 0 | 10 6 | |

B.

Sanitary districts from which patients are admitted to the hospital.

| Name of District. | Population of District. |
|---|---|
| Hampton Urban .. .. .. | 14,000 (Estimated 1930.) |

*Name of Authority :* Uxbridge Joint Hospital Board.

*Name of Hospital :* Uxbridge Joint (or Isolation) Hospital.

| | |
|---|---|
| **A.** | |
| Where is the hospital situated ? .. .. | Kingston Lane, Uxbridge. |
| **Site.** Area in acres .. .. .. .. | $2\frac{3}{4}$. |
| Is there room on the site for extension ? .. | Not for further Ward Blocks. |
| Can the site be extended ? .. .. .. | Yes, under option agreement (see Remarks, next page). |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. |
| State nature and height of fencing .. .. | 6 ft. corrugated iron fencing. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public. Rickmansworth Valley Co. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Connected with public sewers. |
| **Heating,** Means of .. .. .. .. | Boilers and hot water radiators. |
| **Lighting** (artificial), Means of .. .. | Electric supply from public company. |
| **Number of separate buildings** .. .. | 3 Ward Blocks, 1 Cubicle Block, Administrative Block, Laundry and Disinfector Block, Porter's Lodge. |
| Of what materials are they constructed ? .. | Brick and slated buildings. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Yes. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 4. |
| Total number of wards.. .. .. .. | 6 wards, 12 cubicles. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 48 beds. |
| Any discharge block ? .. .. .. .. | Bath Room and Discharge Room, with separate exit in No. 1 Ward Block. |
| What diseases are usually treated ? .. .. | Scarlet fever, diphtheria, typhoid, para-typhoid, enteric, cerebro-spinal meningitis, encephalitis lethargica. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 15 ; (*b*) 7. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed ? .. .. .. | Yes. P.O. ; private system to Administrative and Ward Blocks. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Electricity. |
| Is it adequate ? .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Steam disinfector. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor ambulance. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** ? .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. Part-time Medical Officer. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1 .. .. .. | 2 | 1 | 36 0 and 18 0 | 16 0<br>18 0 | 14 0<br>14 0 |
| | | 2 | 36 0 and 18 0 | 16 0<br>18 0 | 14 0<br>14 0 |
| „ 2 .. .. .. | 2 | 1 | 36 0 | 26 0 | 13 0 |
| | | 2 | 36 0 | 26 0 | 13 0 |
| „ 3 .. .. .. | 2 | 1 | 36 0 | 24 0 | 12 0 |
| | | 2 | 36 0 | 24 0 | 12 0 |
| „ 4 .. .. .. | 12 cubicles | 6 | 15 7 | 8 6 | 10 0 |
| | | 6 | 15 7 | 8 0 | 10 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | Population of District. (Estimated in each case.) |
|---|---|
| Uxbridge Urban District .. .. .. | 30,132 (Estimated to 31.10.30.) |
| Ruislip-Northwood Urban District .. .. | 17,971 (Estimated to 31.10.30.) |
| Hayes and Harlington Urban District .. | 25,000 (Estimated to June, 1930.) |
| Yiewsley and West Drayton Urban District.. | 12,500 (Estimated to June, 1930.) |

*Remarks.*

**Site.** *Reference from previous page.*

Ten years' option agreement, dated 26th July, 1929, to acquire about 1 acre 1 rood and 4 poles of land adjoining.

*Name of Authority :* STAINES JOINT HOSPITAL COMMITTEE.

*Name of Hospital :* STAINES JOINT HOSPITAL.

| A. | |
|---|---|
| Where is the hospital situated ? .. .. | Long Lane, Ashford, Middlesex. |
| **Site.** Area in acres .. .. .. .. | 4. |
| Is there room on the site for extension ? .. | Yes. |
| Can the site be extended ? .. .. .. | Yes, another 3 acres. |
| Is the approach road satisfactory ? .. .. | Yes. |
| **Fencing.** | |
| Is the site completely fenced in ? .. .. | Yes. Height, 6 ft. |
| State nature and height of fencing .. .. | Close-boarded fence in outside borders ; iron fence round Administrative Block. |
| **Water Supply.** | |
| Public supply or other source ? .. .. | Public supply and well for laundry. |
| Is the supply adequate for all purposes ? .. | Yes. |
| **Sewage Disposal,** Means of .. .. .. | Main drainage to ejector. |
| **Heating,** Means of .. .. .. .. | Coal and coke fires. |
| **Lighting** (artificial), Means of .. .. | Electric light. |
| **Number of separate buildings** .. .. | 6. |
| Of what materials are they constructed ? .. | Brick and tile, rough cast. |
| Are the buildings not less than 40 ft. from each other and from the boundary fence ? | Not less. |
| **Accommodation for Patients.** | |
| Total number of blocks or pavilions .. .. | 3. |
| Total number of wards.. .. .. .. | 4 wards and 8 rooms for single cases ; 2 play rooms. |
| Total number of beds, allowing 144 sq. ft. of floor space per bed. | 36+. |
| Any discharge block ? .. .. .. .. | Yes. |
| What diseases are usually treated ? .. .. | Diphtheria, scarlet fever. Occasionally enteric, erysipelas, meningitis, cerebro-spinal meningitis and encephalitis lethargica. |
| **Administrative Accommodation.** | |
| Is it adequate for all the nursing and domestic staff employed ? | Yes. |
| What number of (*a*) nursing and (*b*) domestic staff can be accommodated ? | (*a*) 11 ; (*b*) 9. |
| Are the kitchen and cooking arrangements adequate ? | Yes. |
| Are telephones installed .. .. .. | Yes. |
| Is there a **laundry** at the hospital ? Power or hand ? | Yes. Power. |
| Is it adequate ?.. .. .. .. .. | Yes. |
| Is there **disinfecting apparatus** at the hospital ? If so, state type. | Yes. Lyons. |
| Is an **ambulance** kept at the hospital ? Motor or horse ? | Yes. Motor. |
| Is there a **mortuary** at the hospital ? .. | Yes. |
| Is there a **porter's lodge** .. .. .. | Yes. |
| Are there **cottages** at the hospital for out-door staff ? | No. |
| **Is there a resident Medical Officer** ? .. | No. |

*Details of Wards in the Hospital.*

The number of blocks or pavilions, the number of wards in each and the dimensions of each ward.

| Ward Blocks. | No. of Wards in each Block. | Ward Number. | Dimensions of each Ward. | | |
|---|---|---|---|---|---|
| | | | Length. | Breadth. | Height. |
| | | | ft. in. | ft. in. | ft. in. |
| No. 1, Diphtheria .. | 2 large wards | 1 | 48 0 | 26 0 | 13 0 |
| | | 2 | 36 0 | 26 0 | 13 0 |
| | 2 small Rooms | 3 | 12 0 | 12 0 | 13 0 |
| | | 4 | 12 0 | 12 0 | 13 0 |
| ,, 2, Scarlet Fever .. | 2 large Wards | 1 | 48 0 | 26 0 | 13 0 |
| | | 2 | 36 0 | 26 0 | 13 0 |
| | 2 small rooms | 3 | 12 0 | 12 0 | 13 0 |
| | | 4 | 12 0 | 12 0 | 13 0 |
| ,, 3, Observation .. | 4 small Rooms | 1 | 12 0 | 12 0 | 13 0 |
| | | 2 | 12 0 | 12 0 | 13 0 |
| | | 3 | 12 0 | 12 0 | 13 0 |
| | | 4 | 12 0 | 12 0 | 13 0 |

**B.**

Sanitary districts from which patients are admitted to the hospital :—

| Name of District. | | Population of District. |
|---|---|---|
| Feltham .. .. | | *Say* |
| Hatton .. .. | Feltham Urban District .. .. | 14,000 |
| Bedfont .. .. | | |
| Hanworth .. .. | | |
| Staines .. .. | | |
| Ashford, Middlesex | Staines Urban District .. .. | 16,000 |
| Stanwell .. .. | | |
| Laleham .. .. | | |
| Sunbury .. .. | | |
| Ashford Common .. | Sunbury Urban District .. .. | 9,500 |
| Shepperton .. .. | | |

*Isolation hospital accommodation for smallpox.*

The County of Middlesex (Prevention and Treatment of Smallpox) Regulations, 1928, constituted the County Council the authority for the provision of isolation accommodation and treatment of persons suffering from smallpox in all parts of the County with the exception of the Urban District of Willesden. In 1929 the District Council of Willesden made application to the County Council to be included in the arrangements applying to the rest of the County and, accordingly, the Minister of Health in 1930 issued Regulations amending those of 1928 and having the effect of constituting the Middlesex County Council the smallpox hospital authority for the entire administrative county.

The County Council has fulfilled its obligations in this direction by entering into an agreement with the London County Council whereby the very extensive smallpox hospital provision which was made by the late Metropolitan Asylums Board for the reception of London cases is now also available for residents in any part of Middlesex. The smallpox hospitals belonging to the London County Council are situated on the Thames at Dartford and comprise Long Reach Hospital, Joyce Green Hospital and Orchard Hospital with a total permanent accommodation of some 2,000 beds. On the hospital sites there is ample land for enlarging the existing provision to almost unlimited extent by the erection, in time of need, of temporary buildings. So far as it is possible to foresee, therefore, the County of Middlesex is amply protected, so far as isolation hospital accommodation is concerned, against any outbreaks of smallpox which are likely to arise.

On the occurrence of a case of smallpox in a district in Middlesex, the County Medical Officer, or the local Medical Officer of Health communicates by telephone with the ambulance department of the London County Council, who undertake all arrangements for the patient's immediate removal to hospital.

## Tuberculosis.

The Public Health (Tuberculosis) Regulations, 1912, which make it compulsory for every medical practitioner to notify to the local sanitary authority all cases of tuberculosis, both pulmonary and non-pulmonary, provide that each local medical officer of health shall furnish to the County Medical Officer a weekly return, giving full particulars of each notification. A summary of these notifications, divided into males and females, pulmonary and non-pulmonary forms of the disease, and various specified age groups, is prepared annually by the County Medical Officer and forwarded to the Ministry of Health.

These Regulations were supplemented by the Public Health (Tuberculosis) Regulations, 1924, and, in accordance with the terms of the circular which accompanied the latter Regulations, local medical officers of health are required to include on their returns, specially marked, particulars of all new cases which have come to their knowledge in other ways than by notification, *e.g.*, from death returns, &c.

The number of new cases of tuberculosis reported in the County by district medical officers of health during 1930 was 2,298, an increase of 94 as compared with the total for 1929. Of these cases, fourteen were those of persons who changed their place of residence from one sanitary district to another within the County and, in accordance with the Regulations, were the subject of primary notification in each such district. Thus the net number of new cases in the County as a whole was 2,284.

Of the gross total, 2,019 (87·86 per cent.) were notified by medical practitioners or school medical officers in accordance with the Regulations, whilst 279 (12·14 per cent.) came to the notice of medical officers of health otherwise than by formal notification.

The number of deaths attributed to tuberculosis during the year was 1,164 (a decrease of 51, as compared with 1929) of which 981 were due to pulmonary and 183 to non-pulmonary tuberculosis, corresponding to a death-rate from all forms of the disease of 0·75 per 1,000 persons living.

Owing to certain defects in the system of notification, it is quite certain that the number of cases of tuberculosis reported by district medical officers of health does not represent with any degree of exactitude the number of new cases of infection with tuberculosis occurring in the course of a year. At the same time the number of notifications may be regarded as a useful index of the incidence of tuberculosis when the figures relating to a period of years are considered. In the following table information is given regarding the number of notifications of tuberculosis during the past ten years. The incidence rate (as measured by the number of notifications) has shown a very definite fall in the decade, the decrease affecting particularly the incidence of tuberculosis of the respiratory system.

TUBERCULOSIS NOTIFICATIONS AND DEATHS FOR PAST 10 YEARS.

| | Tuberculosis of Respiratory System. | | | | All Forms of Tuberculosis. | | | |
|---|---|---|---|---|---|---|---|---|
| | Number of Notifications. | Rate per 1,000 living. | Number of Deaths. | Death-rate per 1,000 living. | Number of Notifications. | Rate per 1,000 living. | Number of Deaths. | Death-rate per 1,000 living. |
| 1921 | 1,604 | 1·27 | 944 | 0·75 | 1,931 | 1·53 | 1,180 | 0·94 |
| 1922 | 1,529 | 1·21 | 948 | 0·75 | 1,823 | 1·44 | 1,142 | 0·90 |
| 1923 | 1,565 | 1·23 | 916 | 0·72 | 1,944 | 1·52 | 1,120 | 0·88 |
| 1924 | 1,635 | 1·27 | 986 | 0·76 | 1,982 | 1·54 | 1,188 | 0·92 |
| 1925 | 1,630 | 1·25 | 922 | 0·71 | 1,982 | 1·52 | 1,097 | 0·84 |
| 1926 | 1,655 | 1·25 | 944 | 0·71 | 2,009 | 1·52 | 1,138 | 0·86 |
| 1927 | 1,621 | 1·20 | 1,024 | 0·76 | 2,015 | 1·49 | 1,193 | 0·88 |
| 1928 | 1,478 | 1·04 | 909 | 0·64 | 1,819 | 1·28 | 1,071 | 0·76 |
| 1929 | 1,606 | 1·10 | 1,058 | 0·73 | 1,911 | 1·31 | 1,215 | 0·83 |
| 1930 | 1,629* | 1·04 | 981 | 0·63 | 2,019* | 1·29 | 1,164 | 0·75 |

* These figures were obtained from the weekly notifications of the district medical officers of health in the County; the remaining statistics (except the rates) were supplied by the Registrar-General.

A more accurate criterion of the progress which is being made to combat tuberculosis is to be found in the death-rate from this disease. In the above table, in addition to information regarding notifications, the number of deaths, year by year and the death-rates from tuberculosis are given. It will be noted with satisfaction that the death-rates in 1930 from tuberculosis (all forms) and from pulmonary tuberculosis are the lowest on record, and that the death-rate has been sensibly and fairly steadily declining for a number of years. This fact is illustrated in graphic form by the diagram which appears on page 111.

The following table shows the age and sex distribution of the 2,284 new cases, divided into pulmonary and non-pulmonary groups and compared with the number of deaths, similarly classified :—

NEW CASES AND DEATHS DURING 1930.

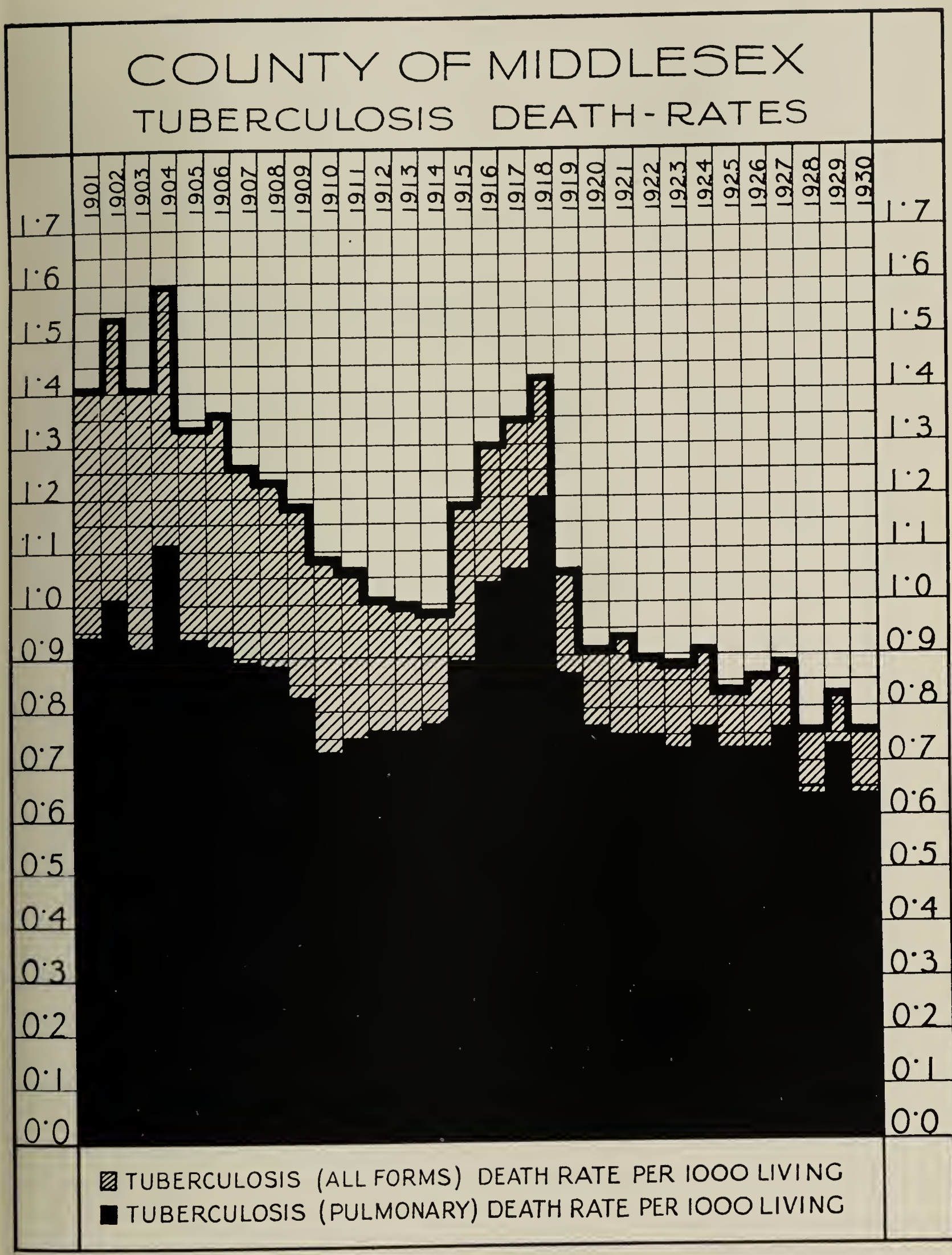
| Age Periods. | New Cases.* | | | | Deaths.† | | | |
|---|---|---|---|---|---|---|---|---|
| | Pulmonary. | | Non-Pulmonary. | | Pulmonary. | | Non-Pulmonary. | |
| | M. | F. | M. | F. | M. | F. | M. | F. |
| 0–1 .. .. .. | 2 | — | 9 | 8 | 2 | 3 | 8 | 9 |
| 1–5 .. .. .. | 3 | 3 | 42 | 33 | 6 | 3 | 25 | 26 |
| 5–10 .. .. .. | 16 | 18 | 51 | 26 | 4 | 9 | 15 | 13 |
| 10–15 .. .. .. | 18 | 17 | 42 | 43 | | | | |
| 15–20 .. .. .. | 89 | 80 | 21 | 19 | 91 | 152 | 14 | 16 |
| 20–25 .. .. .. | 147 | 191 | 24 | 34 | | | | |
| 25–35 .. .. .. | 278 | 264 | 31 | 30 | 239 | 197 | 15 | 12 |
| 35–45 .. .. .. | 207 | 136 | 10 | 10 | | | | |
| 45–55 .. .. .. | 135 | 60 | 7 | 11 | 172 | 63 | 16 | 8 |
| 55–65 .. .. .. | 95 | 22 | 4 | 6 | | | | |
| 65 and upwards .. | 23 | 15 | 2 | 2 | 27 | 13 | 2 | 4 |
| Totals .. .. | 1,013 | 806 | 243 | 222 | 541 | 440 | 95 | 88 |

* These figures are summarised from the weekly returns received from the medical officer of health of each district in accordance with the Public Health (Tuberculosis) Regulations, 1924, and include notified and non-notified cases in the County as a whole during the period of 53 weeks ended 3rd January, 1931.

† Statistics supplied by the Registrar-General.

The table illustrates the already well-established facts that tuberculosis is more common among males than among females, that as regards pulmonary disease the highest incidence and mortality is in the early middle period of life, whilst non-pulmonary tuberculosis is more particularly a disease of childhood.

In the table on pages 112 and 113 are set out details relating to notifications and deaths in each sanitary district in Middlesex, together with the numbers of persons whose names were on the tuberculosis registers kept by the various local sanitary authorities at the close of the year.


COUNTY OF MIDDLESEX
TUBERCULOSIS DEATH-RATES
1901
1902
1903
1904
1905
1906
1907
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1·7
1·6
1·5
1·4
1·3
1·2
1·1
1·0
0·9
0·8
0·7
0·6
0·5
0·4
0·3
0·2
0·1
0·0
TUBERCULOSIS (ALL FORMS) DEATH RATE PER 1000 LIVING
TUBERCULOSIS (PULMONARY) DEATH RATE PER 1000 LIVING

NOTIFICATIONS OF, DEATHS FROM, AND TOTAL NUMBER OF CASES OF TUBERCULOSIS IN EACH SANITARY DISTRICT.*

| District. | Tuberculosis (all forms). | | | | Cases of tuberculosis remaining on the 31st December, 1930, on the Registers of Notifications kept by Medical Officers of Health of districts in the County. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases notified, 1930. | | Deaths, 1930. | | Pulmonary. | | | Non-Pulmonary. | | | Grand Total. |
| | No. | Rate per 1,000 living. | No. | Rate per 1,000 living. | Males. | Females. | Total. | Males. | Females. | Total. | |
| *Urban*— | | | | | | | | | | | |
| Acton (*Borough*) .. .. .. .. | 101 | 1·48 | 67 | 0·98 | 119 | 124 | 243 | 30 | 20 | 50 | 293 |
| Brentford and Chiswick .. .. .. | 82 | 1·34 | 47 | 0·77 | 291 | 266 | 557 | 58 | 87 | 145 | 702 |
| Ealing (*Borough*) .. .. .. .. | 134 | 1·20 | 87 | 0·78 | 167 | 129 | 296 | 41 | 46 | 87 | 383 |
| Edmonton .. .. .. .. .. | 93 | 1·22 | 70 | 0·92 | 299 | 224 | 523 | 82 | 87 | 169 | 692 |
| Enfield .. .. .. .. .. | 79 | 1·18 | 49 | 0·73 | 177 | 140 | 317 | 37 | 46 | 83 | 400 |
| Feltham .. .. .. .. .. | 10 | 0·75 | 8 | 0·60 | 10 | 10 | 20 | 4 | 4 | 8 | 28 |
| Finchley .. .. .. .. .. | 61 | 1·07 | 33 | 0·58 | 100 | 101 | 201 | 28 | 29 | 57 | 258 |
| Friern Barnet .. .. .. .. .. | 17 | 0·76 | 12 | 0·53 | 29 | 34 | 63 | 11 | 3 | 14 | 77 |
| Hampton .. .. .. .. .. | 9 | 0·71 | 5 | 0·40 | 10 | 10 | 20 | 11 | 8 | 19 | 39 |
| Hampton Wick .. .. .. .. | 3 | 1·01 | 4 | 1·35 | 5 | 5 | 10 | 1 | 4 | 5 | 15 |
| Harrow.. .. .. .. .. .. | 27 | 1·04 | 10 | 0·39 | 29 | 33 | 62 | 2 | 9 | 11 | 73 |
| Hayes and Harlington .. .. .. | 39 | 1·92 | 20 | 0·99 | 34 | 33 | 67 | 17 | 11 | 28 | 95 |
| Hendon .. .. .. .. .. | 130 | 1·32 | 69 | 0·70 | 253 | 238 | 491 | 90 | 109 | 199 | 690 |
| Heston and Isleworth .. .. .. | 83 | 1·19 | 48 | 0·69 | 83 | 72 | 155 | 19 | 25 | 44 | 199 |
| Hornsey (*Borough*) .. .. .. .. | 110 | 1·19 | 66 | 0·71 | 237 | 236 | 473 | 69 | 61 | 130 | 603 |
| Kingsbury .. .. .. .. .. | 13 | 1·00 | 7 | 0·54 | 13 | 13 | 26 | 3 | 1 | 4 | 30 |
| Ruislip-Northwood .. .. .. .. | 19 | 1·32 | 8 | 0·55 | 33 | 29 | 62 | 11 | 6 | 17 | 79 |
| Southall-Norwood .. .. .. .. | 58 | 1·54 | 19 | 0·51 | 60 | 65 | 125 | 16 | 19 | 35 | 160 |
| Southgate .. .. .. .. .. | 40 | 0·76 | 38 | 0·72 | 86 | 61 | 147 | 18 | 18 | 36 | 183 |
| Staines .. .. .. .. .. | 17 | 0·99 | 14 | 0·82 | 16 | 12 | 28 | 2 | 2 | 4 | 32 |
| Sunbury .. .. .. .. .. | 10 | 0·86 | 7 | 0·60 | 12 | 12 | 24 | 2 | 4 | 6 | 30 |
| Teddington .. .. .. .. .. | 32 | 1·39 | 21 | 0·92 | 44 | 32 | 76 | 25 | 14 | 39 | 115 |
| Tottenham .. .. .. .. .. | 249 | 1·58 | 141 | 0·90 | 400 | 268 | 668 | 115 | 75 | 190 | 858 |
| Twickenham (*Borough*) .. .. .. | 62 | 1·62 | 26 | 0·68 | 79 | 68 | 147 | 26 | 24 | 50 | 197 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Uxbridge | 28 | 0·99 | 15 | 0·53 | 46 | 38 | 84 | 25 | 15 | 40 | 124 |
| Wealdstone | 32 | 1·32 | 17 | 0·70 | 58 | 58 | 116 | 11 | 15 | 26 | 142 |
| Wembley | 53 | 1·24 | 30 | 0·70 | 115 | 101 | 216 | 20 | 38 | 58 | 274 |
| Willesden | 289 | 1·61 | 140 | 0·78 | 602 | 594 | 1,196 | 256 | 240 | 496 | 1,692 |
| Wood Green | 69 | 1·28 | 45 | 0·83 | 183 | 163 | 346 | 46 | 64 | 110 | 456 |
| Yiewsley and West Drayton | 11 | 0·96 | 14 | 1·22 | 25 | 24 | 49 | 14 | 15 | 29 | 78 |
| *Rural—* | | | | | | | | | | | |
| Hendon | 48 | 1·16 | 17 | 0·41 | 63 | 43 | 106 | 14 | 8 | 22 | 128 |
| South Mimms | 9 | 1·76 | 4 | 0·78 | 8 | 4 | 12 | 4 | 3 | 7 | 19 |
| Staines† | 2 | 0·26 | 6 | 0·77 | — | — | — | — | — | — | — |
| The County | 2,019 | 1·29 | 1,164 | 0·75 | 3,686 | 3,240 | 6,926 | 1,108 | 1,110 | 2,218 | 9,144 |

* Statistics as to deaths supplied by the Registrar-General. Other statistics obtained from periodical returns from district medical officers of health.

† Staines Rural District abolished 31st March, 1930.

### Scheme for the Prevention and Treatment of Tuberculosis.

The County Council's scheme for the prevention and treatment of tuberculosis embraces the entire administrative county and applies to every resident in Middlesex suffering from tuberculosis in any of its forms.

From its origin in 1912 the foundation of the scheme has been the provision of a staff of physicians possessing special knowledge and experience of the diagnosis and treatment of tuberculosis. These tuberculosis medical officers devote the whole of their time to the detection, supervision and treatment of cases of tuberculosis, working in close co-operation with the general medical practitioners of the county in the relationship of consultants.

For the purposes of administration of the tuberculosis scheme, the county has been divided into six areas, each in charge of a tuberculosis officer. In each area a head tuberculosis dispensary has been established and, where necessary, sub-dispensaries have been opened in order that the facilities provided by the scheme may be reasonably accessible to persons residing in all parts of the county.

Information regarding the tuberculosis dispensary arrangements in Middlesex is contained in the table which follows :—

### Tuberculosis Dispensary Areas.

| Area. | Districts served. | Tuberculosis Medical Officer. | Head Dispensary. | Branch Dispensaries. |
|---|---|---|---|---|
| 1 | Edmonton, Enfield .. .. | Dr. H. Evans .. | 279, Fore Street, Edmonton. | — |
| 1A | Tottenham .. .. .. | Dr. S. T. Davies .. | 140, West Green Road, Tottenham. | — |
| 2 | Finchley, Friern Barnet, Hendon (Urban), Hornsey, Southgate, Wood Green, South Mimms. | Dr. J. R. B. Dobson | Chester Villa, High Road, N. Finchley. | 10, Alexandra Road, Hornsey ; 158, The Broadway, West Hendon. |
| 3 | Harrow, Kingsbury, Ruislip-Northwood, Wealdstone, Wembley, Willesden, Hendon (Rural). | Dr. O. Bruce.. .. | Pound Lane, Willesden. | 53, Greenhill Crescent, Harrow. |
| 4 | Acton, Ealing, Hayes and Harlington, Southall-Norwood, Uxbridge, Yiewsley and West Drayton. | Dr. F. R. B. Atkinson | Green Man Lane, Ealing. | School Clinic, 45 and 47, Avenue Road, Acton ; 156, High Street, Uxbridge. |
| 5 | Brentford & Chiswick, Feltham, Hampton, Hampton Wick, Heston & Isleworth, Staines, Sunbury, Teddington, Twickenham. | Dr. W. S. Forbes .. | 28, Bell Road, Hounslow. | 14, Heathfield Terrace, Chiswick ; 12, Thames Street, Staines ; 1, Staines Road, Twickenham. |

Each tuberculosis officer is assisted in his work by whole-time nurses, whose duty it is to visit patients in their homes and ensure that, so far as is possible, the instructions given by the tuberculosis officer for the care of the patient and the safety of his family are being carried out. The clerical work of each area, of which there is a considerable amount, is undertaken by a whole-time clerk at each dispensary. The whole scheme is centralised and is co-ordinated by the County Medical Officer, who acts as chief administrative tuberculosis officer, and arrangements for institutional treatment are made through the Public Health Department of the County Council.

As an adjunct to its scheme, the County Council in 1929 approved the provision of the home nursing of tuberculous persons in certain carefully selected cases. The number of instances, however, in which this service should be employed is very limited and is confined to two classes of patients : (1) acute cases recommended for sanatorium or hospital but for whom a vacancy is not immediately available, or who are not well enough to be removed until acute symptoms have subsided ; and (2) chronic bedridden patients suffering from chronic pulmonary or non-pulmonary disease who for any reason are not considered suitable for institutional treatment, but are in need of nursing attention or dressing, and in whose cases the home circumstances are suitable for the patient to be retained with comfort to himself and no undue risk to his family. As will readily be realised, cases fulfilling these conditions are not common, but occasionally this nursing service has proved of value and of very real help.

The following conjoint report has been compiled by the Tuberculosis Officers and sets out some of the observations and impressions which have been recorded by them in surveying the work for which they have been responsible during the past five years :—

" The various points suggested under the Memorandum of the Ministry of Health as to the contents and arrangements of Annual Reports of Medical Officers of Health have been fully dealt with in previous years. As these points represent a more or less routine account of our scheme and methods, which have undergone no major alteration since our last report, it is not proposed to elaborate them further this year. The incidence of notified tuberculosis in the county has shown a steady decrease during recent years, a decrease also being shown in the death-rate :—

*Incidence.*—1926. 1·55 per 1,000 living.
1930. 1·29 ,, ,,

*Death-Rate.*—1926. 0·86 per 1,000 living.
1930. 0·75 ,, ,,

This decrease has occurred in spite of the fact that suspects now more frequently offer themselves for examination, and despite a probable improved standard of diagnostic skill in detection of disease in an earlier state than formerly. The effects of this, and the institution of treatment before disease has progressed to any considerable extent, must have some bearing upon the decreased death-rate. Improvement in the general standard of living undoubtedly accounts for a proportion of this gratifying decline, but the recent growth of unemployment and consequent poverty would lead one to expect conditions favouring infection and we feel the decline must be very largely attributed to the efforts made in connection with the anti-tuberculosis scheme in the County.

The decrease in incidence has not resulted in any diminution of the work done at the dispensaries. On the contrary, though the number of cases diagnosed as tuberculous is on the down-grade, the number of new cases seen remains fairly constant. The efficiency of dispensary work is to a great extent represented by the number of *new* cases referred for an opinion, showing the extent to which the dispensaries are being made use of by general practitioners and the public.

During the last few years the most striking advance in the treatment of pulmonary tuberculosis has been along what may be termed surgical lines. Perhaps the most useful of these methods of treatment is that known as artificial pneumothorax. This consists in introducing air between the external lining of the lung and the interior of the chest-wall, and, by pressure, collapsing the diseased lung, thus keeping it approximately at rest. This treatment is commenced under in-patient conditions in our County Sanatorium at Harefield, and patients afterwards attend there at stated intervals for refills. These latter attendances are arranged so as to cause as little interference as possible with any work upon which a patient may be engaged. Artificial pneumothorax treatment is always very carefully controlled at Harefield by X-ray examination. Screening or filming is performed in practically every case given a refill. This control by X-ray we consider to be of the very greatest importance in carrying out this treatment and we feel strongly that artificial pneumothorax refills should not be given as an out-patient routine without this radiological control. By arrangement, refills are also carried out on our patients at certain chest hospitals and general hospitals in London. In many cases refills are continued for 2 or 3 years, and they have been continued for as long as 6 years, with undoubted benefit to the patients.

Thoracoplasty—the removal by surgical operation of sections of the ribs—causing the permanent collapse of the diseased lung, has, of recent years, become a far less hazardous undertaking than formerly. This operation is now performed in stages, which lessens the shock and very considerably reduces the risks to the patient. It is now attempted on earlier types of cases than heretofore and, in consequence, has proved much more successful. Cases in which other forms of treatment have, for some reason or another, failed, are now considered as to their suitability for this procedure. Certain Middlesex cases have had this operation performed during the year with eminently successful results and with singularly little resultant deformity.

Sanocrysin, popularly known as the " Gold Treatment," has been given in several cases at Harefield Sanatorium where the patient has not responded to other methods of treatment. In some cases the results have apparently been good, particularly in reducing the amount of sputum and in eliminating tubercle bacilli in it. In our opinion this is not the long-looked-for specific cure for tuberculosis, but is a useful adjunct in some cases where other means have failed.

In respect of non-pulmonary tuberculosis, the main advance of the last few years has been in the treatment of lupus. The combination of "artificial sunlight" with the other forms of light treatment previously used—Kromayer, Finsen, &c.—has undoubtedly very much reduced the period of treatment necessary to effect a cure. Some observers go so far as to say a cure which previously took years to effect is now attained in a corresponding number of months.

The last five years have shown a definite increase in the number of cases in which new growths have been found in the lung, many of these proving to be malignant. Whether malignant growths of the lung are becoming, in fact, more numerous, or whether increasing use of X-ray and other diagnostic methods renders their discovery more frequent, it is impossible to say, but it is certain they can no longer be looked upon as rare conditions.

An interesting feature of this year's activities has been the visit of one of our tuberculosis officers, Dr. Dobson, to Canada with the scholarship party of tuberculosis experts, financed by the Sun Life Assurance Co. of Canada. The County Council also showed their interest in the educational value of this tour by making a grant towards the expenses of their representative. The opportunity for personal investigation of other people's methods, and of seeing all the latest means of dealing with tuberculosis from both preventive and curative view-points in Canada and the United States, proved of extraordinary value and interest. Dr. Dobson's report on the tour proved most stimulating and instructive. It was evident the tour was no "joy-ride" and the days proved all too short for the tremendous amount of work required of the tourists. A striking example of the more drastic methods employed in some parts of the United States was given by Dr. Dobson, who told us that, in one city, when a highly infectious case of tuberculosis resisted the local authority's efforts at isolation and treatment, a Quarantine Officer was empowered to affix to the patient's front door a large red card bearing the startling announcement "Tuberculosis Case—Keep Out!"

Dr. Dobson's impression was that, in Canada, rather more reliance is laid upon mechanical methods of diagnosis, *i.e.*, by X-ray, skin tests, special methods of sputum examination, &c., than in this country—and, perhaps, rather less on ordinary clinical examination with the stethoscope, which still holds pride of place in our investigations. Radiological examination is very extensively practised in Canada, and all dispensaries and institutions are fitted with the latest plant for this purpose.

In Middlesex, during the last five years, X-ray films of the chest have increasingly been made use of, though the dispensaries are not fitted with radiographic apparatus. Arrangements are made in each district for X-ray photographs to be taken at some local and convenient centre. In some areas this centre is the X-ray department of a local hospital, and in others the patients are sent to the County Sanatorium at Harefield. The advantage of the scheme is that the X-ray pictures are taken and reported upon by expert radiologists, specialists who have long training and experience to assist them in the very difficult operation of correctly interpreting the intricacies of the X-ray plate. We believe this method of using established plants in each district and gaining the advantage of expert opinion, is both financially more economical and clinically more efficient than would be the case were X-ray apparatus to be installed at each head dispensary. In some cases the injection of lipiodol into the air tubes has been used. This spreads over the tubes large and small, which then show up darkly on the X-ray plate. The method is of great assistance in the diagnosis of bronchiectasis and new growths of the lung.

As in previous years, meetings of Tuberculosis Officers have been regularly held throughout the winter months at headquarters, and have generally been attended by the County Medical Officer. These meetings afford an opportunity for the discussion of difficult points in administration and clinical work, and help to establish uniformity of method between the various areas. Interesting cases are described and the resulting discussions are of the utmost value in assisting us in our efforts to keep abreast of the times. We would like to express our indebtedness to our indefatigable secretary, Dr. Atkinson, for his work in arranging these meetings."

### Institutional Accommodation.

The County Council possesses two sanatoria for the treatment of cases of pulmonary tuberculosis. Both are situated on the borders of the County, one at Harefield and one at South Mimms. Together these two sanatoria provide accommodation for five hundred cases and, in addition, there are eight observation beds for children at the County Sanatorium, Harefield, and sixteen observation beds for adults at the Council's Hospital Dispensary at Hounslow.

The County Council has not provided under its scheme any institutions for the treatment of non-pulmonary tuberculosis, but sends such cases to institutions not under its control, but approved by the Ministry of Health.

The following statement shows the total number of beds belonging to, or reserved for the sole use of, the Council during 1930 :—

| Institution. | Accommodation. | | | Type of case. |
|---|---|---|---|---|
| | Adults. | | Children. | |
| | M. | F. | | |
| *County Sanatorium, Harefield | 129 | 129 | 56 | Pulmonary—sanatorium. |
| | — | — | 8 | Pulmonary—observation. |
| *County Sanatorium, Clare Hall, South Mimms | 120 | 66 | — | Pulmonary—late sanatorium and hospital. |
| County Council Hospital-Dispensary, Hounslow. | 9 | 7 | — | Pulmonary—observation. |
| Heatherwood Hospital, Ascot .. | — | — | 25 | Non-pulmonary. |
| Victoria Home, Margate .. .. | — | — | 6 | Non-pulmonary. |

* Information as to the extent of the work carried out at the County Sanatoria, during 1930 appears on page 118 *et seq.* of this Report.

*Other Institutions at which Patients have been maintained during* 1930.

| | |
|---|---|
| *Sanatoria.*—Brompton Hospital and Frimley ; Cheyne Hospital for Children, Chelsea ; Chilton Hill, Sudbury ; Daneswood ; Eversfield, Sussex ; Fairlight, Hastings ; Grosvenor, Ashford, Kent ; Holy Cross, Haslemere ; King Edward VII, Midhurst ; King George's Bramshot ; Marillac, Warley ; Merivale, Chelmsford ; National Sanatorium, Benenden ; Pinewood, Wokingham ; Royal National, Bournemouth ; Royal National, Ventnor. | Pulmonary—various types. |
| *Hospitals.*—City of London, Victoria Park ; London Hospital ; St. Mary's ; St. Thomas's ; University College, London ; and St. Anthony's, Cheam. | |
| *Colonies.*—British LegionVillage,Preston Hall,Kent ; Papworth Village Settlement, Papworth Hall, Cambridge. | |
| *Homes for very advanced cases.*—St. Joseph's Hospice, Hackney ; St. Peter's, Kilburn. | |
| *Hospitals.*—Hendon Cottage ; Prince of Wales's, Tottenham ; Royal Sea-Bathing, Margate ; St. Anthony's, Cheam ; and All Saints, Royal National Orthopædic, St. Mary's, St. Thomas's and University College, London. | Non-pulmonary—adults. |
| Alexandra Hospital for Hip Disease, Swanley, Kent ; Children's Hospital, Barnet ; Children's Hospital, Coldash ; Hendon Cottage ; London Hospital ; Lord Mayor Treloar Cripples', Alton ; Royal Hospital, Richmond ; Royal National Orthopædic, Country Branch, Stanmore ; Royal Northern ; Royal Sea-Bathing, Margate ; St. Andrew's Home, Hayling Island ; St. Anthony's, Cheam ; St. Nicholas' and St. Martin's Orthopædic ; Pyrford ; St. Vincent's, Pinner ; Watford and District Peace Memorial, Watford ; Wingfield Orthopædic, Oxford. | Non-pulmonary—children. |

*The County Sanatorium, Harefield.*—The Harefield Park Estate, which had been in use during the Great War as an Australian Military Hospital, came to the notice of the County Council as a possible site for a sanatorium in 1919, a time when institutional provision was urgently required for the large numbers of men leaving the army with tuberculosis which had been contracted on, or aggravated by active service. Apart from the fact that the site was in Middlesex and, therefore, very convenient of access, there were on the estate a large number of huts which had formed the greater part of the war hospital and which were capable of adaptation for sanatorium purposes. By reason of the excessively high cost of building at that time and the difficulty of obtaining materials, the County Council decided that the time was not ripe for large building projects and decided to acquire the estate and hutments as a temporary measure, and defer until a later date the question of building a permanent institution. The huts referred to were remodelled and appropriately distributed on the estate to constitute the accommodation for patients and nursing and domestic staff which now exists at Harefield. At the time of purchase they were given a life of about 15 to 20 years. In view of the fact

that over ten years had passed, the County Council in 1929 gave careful consideration to the question of commencing the replacement of the existing wooden structures by permanent buildings.

A scheme was prepared for the replacement to be undertaken in stages and spread over several years, as it was considered that by this method the building operations would cause the minimum amount of interference to the normal functioning of the sanatorium and, moreover, the cost would be more distributed and not fall within any one financial year. Plans were prepared for the rebuilding of the sanatorium in two-storey blocks of permanent construction. These plans were approved by the County Council and in due course by the Ministry of Health, and towards the close of 1930 the first stage of reconstruction was commenced. As the work of the sanatorium is considerably hampered by the unsatisfactory nature of the staff accommodation, it was decided to commence with the erection of new quarters for the nursing and domestic staff with accommodation for 104 persons, and this building is now in course of construction.

The following summary of the year's work at the Sanatorium has been prepared by Dr. J. R. McGregor, Medical Superintendent :—

"*Admissions.*—During the year ended December 31st, 1930, 728 patients were admitted to the institution for treatment—369 males, 328 females, and 31 children. In addition to these, there were 108 children admitted for observation purposes, 17 of whom were found to have definite signs of pulmonary tuberculosis and were transferred to the treatment wards.

*Discharges.*—During the same period 753 patients were discharged—377 males, 331 females, and 45 children after treatment. In addition 93 children were discharged after observation.

*Out-Patients.*—During the year out-patients were admitted on 582 occasions for the purpose of having artificial pneumothorax refills. Generally these patients came in during the morning and went home the same day, but one case (a female) was detained for a period of treatment.

The following table shows the condition of patients discharged after treatment during 1930.

| Stage of disease on Admission. | Number Discharged. | Condition on Discharge. | | | |
|---|---|---|---|---|---|
| | | Quiescent. | Improved. | No Material Improvement | Died. |
| Class T.B. Minus— | | Per Cent. | Per Cent. | Per Cent. | Per Cent. |
| Males .. .. .. | 59 | 27·11 | 57·62 | 13·55 | 1·69 |
| Females .. .. .. | 69 | 28·98 | 47·82 | 23·18 | — |
| Children .. .. .. | 39 | 53·84 | 38·46 | 7·69 | — |
| Total.. .. .. | 167 | 34·13 | 49·10 | 16·16 | 0·59 |
| Class T.B. Plus— Group I— | | | | | |
| Males .. .. .. | 42 | 7·14 | 83·33 | 9·52 | — |
| Females .. .. .. | 26 | 15·38 | 80·76 | 3·84 | — |
| Children .. .. .. | 1 | — | 100·00 | — | — |
| Total.. .. .. | 69 | 10·14 | 82·60 | 7·24 | — |
| Class T.B. Plus— Group II— | | | | | |
| Males .. .. .. | 146 | 4·10 | 76·02 | 17·12 | 2·73 |
| Females .. .. .. | 101 | 2·97 | 76·23 | 17·82 | 2·97 |
| Children .. .. .. | — | — | — | — | — |
| Total.. .. .. | 247 | 3·64 | 76·11 | 17·40 | 2·83 |
| Class T.B. Plus— Group III— | | | | | |
| Males .. .. .. | 130 | — | 37·69 | 25·38 | 36·92 |
| Females .. .. .. | 135 | — | 34·81 | 42·22 | 22·96 |
| Children .. .. .. | 5 | — | 20·00 | 40·00 | 40·00 |
| Total.. .. .. | 270 | — | 35·92 | 34·07 | 30·00 |

The classification and terms used are those of the Ministry of Health. See explanatory notes on page 121.

The following table shows the results of the examination of 107 children who were primarily admitted for observation and who were discharged during the year :—

| | |
|---|---|
| Tuberculous .. .. .. .. .. .. .. .. | 14 |
| Non-tuberculous.. .. .. .. .. .. .. .. | 90 |
| Doubtful (no definite diagnosis was made as the patients were not here long enough) | 3 |

The diagnosis was made by clinical, microscopical, and X-ray examination. In several cases lipiodol was used for differential diagnosis, and enabled a definite diagnosis of bronchiectasis to be established.

There has been a definite increase in the number of children treated (under the age of 14 years), with pulmonary tuberculosis of the " adult " type, and it must be admitted that, while of infrequent occurrence, this condition is by no means so rare as is often supposed.

Pneumothorax therapy has been carried out as in previous years and has proved a most valuable adjunct to treatment. There is no doubt that, provided a satisfactory collapse of the lung can be obtained, the induction of an artificial pneumothorax greatly improves the outlook for the patient. Occasionally the lung tends to re-expand prematurely despite the continuance of refills, and to restrain this an oleothorax was induced in three cases, with good result. Oleothorax has also been employed in three cases of pyo-pneumothorax with improvement in one case.

804 X-ray photographs have been taken during the year. Of these, 49 were of cases other than patients in the institution, who were referred by the county tuberculosis officers for examination.

In addition, numerous screen examinations were made.

During the year 1930 there were 89 deaths in the institution—males 53, females 34, children 2.

Post-mortem examinations were held on two cases—one male and one female.

Both patients were found to have suffered from pulmonary tuberculosis, complicated by infective endocarditis.

*Clare Hall County Sanatorium, South Mimms.*—This institution has been used for the reception of Middlesex cases of tuberculosis since the inception of the County scheme in 1912, and the following short historical and general survey has been prepared by Dr. Tabois, the Medical Superintendent, who has been in charge of the institution, prior to 1929 as an officer of the Middlesex Districts Joint Smallpox Hospital Board, and since that date as an officer of the County Council.

" The Sanatorium is situated in Middlesex, at South Mimms (near the border of Herts and Middlesex); and is nearly 4 miles from Barnet, 3 from Potters Bar and 7 from St. Albans. Its height above sea level is 350 ft., and the total acreage is about 76 acres ; $22\frac{1}{2}$ of which are held on lease, and negotiations for purchase by the County Council were in progress during the year.

It is protected on the north by a big belt of trees. Patients are sent either directly by ambulance, or are fetched from Potters Bar Station, if they are able to travel by train.

It was acquired by the Middlesex County Council on April 1st, 1929, as a sanatorium for cases of pulmonary tuberculosis. Previously it belonged to the Middlesex Districts Joint Smallpox Hospital Board, who purchased it in 1907 as a smallpox hospital from the ' Smallpox and Vaccination Hospital,' the first hospital established for the treatment of this disease, which was erected in 1746 on the site of the present King's Cross railway terminus ; was subsequently removed to Highgate Hill where it remained till 1896, when it was again moved, this time to South Mimms.

In September, 1928, the entire control of smallpox in Middlesex was taken over by the County Council and the *raison d'être* of Clare Hall as a hospital for smallpox ceased. Previous to this, when the subject of the treatment of pulmonary tuberculosis began to be mooted, Dr. Newsholme, who was then Principal Medical Officer to the Local Government Board, advised the use, in non-epidemic times, of smallpox hospitals for this purpose ; and after inspection, and interview at the Ministry, permission was given for Clare Hall to be so used. To adapt the hospital for this purpose, many alterations were required, and the County Council gave sanction for their architect, Mr. H. G. Crothall, to act for the Board in an advisory capacity, which he continued to do until his death. At first provision was only made for 24 patients to be sent in by the various constituent councils, and the first patient was received on July 30th, 1912.

Subsequently, arrangements were made with other outside authorities, viz., Croydon, who sent 84 cases ; Hertfordshire, who sent 49 cases ; the London County Council, &c., and the Middlesex Insurance Committee whose cases were very carefully selected by the County Medical Officer, who also acted as intermediary between the Board and the Insurance Committee, until the treatment of pulmonary tuberculosis was vested entirely in the Council. As the number of cases from Middlesex gradually increased, all agreements with outside authorities were terminated, and since January, 1916, only Middlesex cases have been admitted. At first only comparatively early cases were dealt with, with consequent low mortality ; but in 1917, 26 male ' hospital ' beds were provided, and this number was gradually increased till April, 1920, when the whole of the 54 beds in the " main " were devoted to ' hospital ' cases.

The whole of the south side is given up to male ' sanatorium ' cases, mostly of advanced type.

The female beds, 66 in number, are on the north side. It is not possible here to set aside any definite section for ' hospital ' cases ; but, owing to the necessity for such provision, it was arranged

in February, 1922, to take these cases also; the relative number of 'sanatorium' and 'hospital' cases are, therefore, variable at any given time.

Naturally, with the variation in type of case, the mortality has risen and also the number of staff employed, and the cost of maintenance. The accommodation then is—

| *Men.* | | *Women.* | |
|---|---|---|---|
| Hospital | Sanatorium. | Hospital & Sanatorium. | |
| 54 | 66 | 66 | = 186 total. |

Both the north and south, and the 'main' have a recreation room attached. Since the opening for cases of pulmonary tuberculosis till the end of 1930—7,628 cases have been admitted; all except 141, being from Middlesex. During the year 1930, 339 were admitted, 207 were discharged, and 128 died, leaving 177 cases in on January 1st, 1931, of which 114 were males and 63 females. Practically all the cases are adults; formerly there were children and a school was provided for them, but on the opening of Harefield in 1921, all the children were transferred there.

*Heating and Hot-water Supply.*—Heating was done by means of 9 sectional boilers and pipes; and the hot-water supply from calorifiers supplied with steam from two Cornish boilers. Since the County Council has taken over, the whole system has been altered, the calorifiers and sectional boilers have been done away with and the Cornish boilers converted into hot-water boilers, the water being driven round the building by electrical turbine. The necessary steam for laundry and cooking is being supplied by the erection of two vertical steam boilers. The water, derived partly from well and partly from the Barnet Water Company, which is normally very hard, is being softened by the erection of a "Permutit" water softening plant.

*Sewage Disposal.*—Sewage from the main hospital building passed into the District Council's sewer, and that from the other buildings was dealt with on the site, but in April, 1922, the whole of the sanatorium was connected with the District Council's sewer. Sewage now flows by gravitation to the lower part of the site, and is then driven into the mains by compressed air. In 1929 the County Council improved the plant by the installation of a second air compressor, thus providing a stand-by in the event of one breaking down and also giving an opportunity of using them alternately.

*Staff.*—The staff quarters, which were opened in December, 1915, owing to the increase of staff necessitated by the type of cases, are proving quite inadequate, and plans are being prepared for alterations to the present buildings and the erection of a new nurses' block."

---

STATISTICAL SURVEY OF THE WORK CARRIED OUT DURING 1930 UNDER THE COUNTY TUBERCULOSIS SCHEME.

The tables appearing on the pages which follow are those prescribed by the Ministry of Health for the purpose of the annual statistical returns of the authority. As will be seen, they contain a most detailed and at the same time comprehensive mass of information regarding the operation of the Council's scheme. Table I refers to the work carried out at or in connection with the dispensaries, Table II deals with the extent of institutional treatment provided, and Table III indicates the immediate results of such treatment. Table IV is, perhaps, the most interesting and instructive, as it endeavours to show in statistical fashion the after-history and ultimate fate of all tuberculous persons who have come under public medical treatment. The tables have not yet been long enough in use to enable any definite conclusions to be drawn from them, but in course of time Table IV will be, to a very large extent, a criterion of the efficiency or otherwise of an authority's scheme, indicating, as it will do, the proportion of cases first coming under treatment during any one year, which ultimately become cured.

Reference to Table III on page 125 shows that during the course of the year seven patients in the *Class T.B. minus* died in various institutions. A patient placed in *Class T.B. minus, i.e.*, one in whom tubercle bacilli have never been demonstrated in the sputum, may as a general rule be considered to be a person in an early stage of the disease, and death, therefore, is not to be anticipated. In these circumstances some further information regarding the seven cases referred to is desirable. Particulars of the patients coming within this category who died in the course of the year are as follows:—

Sputum negative on 6 occasions.
- Cause of death—Pneumonia and bronchiectasis .. .. .. .. .. 1

Sputum negative on 3 occasions.
- Cause of death—Pulmonary tuberculosis and cardiac failure .. .. .. 1

Sputum negative on several occasions.
- Cause of death—Carcinoma of pancreas and deposits in liver and spinal cord 1
- Tuberculosis of peritoneum .. .. .. .. .. 1
- Cardiac failure .. .. .. .. .. .. .. 1

No sputum available.
- Cause of death—Abdominal and lung disease found .. .. .. .. 1
- Pulmonary tuberculosis and cardiac failure .. .. 1

In order to appreciate the information contained in these tables, it is necessary to have in mind the precise meaning of the terms occurring therein, many of which are used in a special sense. Information on this matter is given below.

Definitions and Classification.—Patients diagnosed as suffering from Pulmonary Tuberculosis are placed in the following categories :—

*Class T.B. minus*, viz., cases in which tubercle bacilli have never been demonstrated in the sputum ; and

*Class T.B. plus*, viz., cases in which tubercle bacilli have at any time been found. It should be noted that a patient originally in *Class T.B. minus* must be transferred to *Class T.B. plus* at any stage in the course of treatment if and when tubercle bacilli are found ; while, on the other hand, a patient who is once placed in *Class T.B. plus* can never revert to *Class T.B. minus*. *Class T.B. plus* is further subdivided into three groups as follows :—

Group 1.—Cases with slight constitutional disturbance, if any, *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive.

The obvious physical signs should be of very limited extent as follows :—Either present in one lobe only and, in the case of an apical lesion of one upper lobe, not extending below the second rib in front, or not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.

No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy does not exclude a case from this group.

Group 3.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery.

All cases with grave complications, whether tuberculous or not, are classified in this group, *e.g.*, diabetes, tuberculosis of larynx or intestine, &c.

Group 2.—All cases which cannot be placed in Groups 1 and 3.

Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion as follows :—

(1) Tuberculosis of bones and joints.
(2) Abdominal tuberculosis (*i.e.*, tuberculosis of peritoneum, intestines or mesenteric glands).
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

Patients suffering from multiple lesions are classified in one sub-group only, viz., in that applicable to the case which stands highest in the table.

*Observation Cases.*—Persons attending at, or in connection with, the dispensaries, in whose cases the tuberculosis officer cannot, within a period of one month from his first examination of the case, come to a definite diagnosis after physical examination and the application of the necessary tests. (These cases appear on Table I, A and B, under sub-section *b*.)

*Quiescent.*—Cases which have no symptoms of tuberculosis and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

*Arrested.*—In pulmonary cases the term " arrested " is applied only to cases which have been " quiescent " for a period of at least two years.

In non-pulmonary cases the term " arrested " is used as soon as there is reason to believe that the disease is unlikely to recur.

*Cured.*—No patient is deemed to be " cured " until in the case of pulmonary tuberculosis, five years, and, in the case of non-pulmonary tuberculosis, three years, have elapsed without any symptoms of active disease (*i.e.*, arrest has been maintained for three years).

TABLE I.

*Return showing the work of the Dispensaries during the year* 1930.

| Diagnosis. | Pulmonary. | | | | Non-Pulmonary. | | | | Total. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Adults. | | Children. | | Adults. | | Children. | | Adults. | | Children. | |
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| A.—**New Cases* examined during the year (excluding contacts) :— | | | | | | | | | | | | |
| (*a*) Definitely tuberculous | 583 | 422 | 12 | 18 | 52 | 51 | 63 | 46 | 635 | 473 | 75 | 64 |
| (*b*) Doubtfully tuberculous | — | — | — | — | — | — | — | — | 22 | 29 | 15 | 7 |
| (*c*) Non-tuberculous .. | — | — | — | — | — | — | — | — | 470 | 479 | 213 | 186 |
| B.—*Contacts* examined during the year :— | | | | | | | | | | | | |
| (*a*) Definitely tuberculous | 44 | 41 | 3 | 4 | 3 | 4 | 6 | 7 | 47 | 45 | 9 | 11 |
| (*b*) Doubtfully tuberculous | — | — | — | — | — | — | — | — | 3 | 2 | 5 | 5 |
| (*c*) Non-tuberculous .. | — | — | — | — | — | — | — | — | 112 | 254 | 297 | 298 |
| C.—*Cases* written off the Dispensary Registers as | | | | | | | | | | | | |
| (*a*) Cured .. .. .. | 79 | 75 | 19 | 24 | 18 | 14 | 32 | 25 | 97 | 89 | 51 | 49 |
| (*b*) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) | — | — | — | — | — | — | — | — | 621 | 762 | 529 | 501 |
| D.—*Number of Persons* on Dispensary Registers on December 31st :— | | | | | | | | | | | | |
| (*a*) Diagnosis completed | 2,001 | 1,447 | 170 | 121 | 204 | 221 | 270 | 201 | 2,205 | 1,668 | 440 | 322 |
| (*b*) Diagnosis not completed .. .. .. | — | — | — | — | — | — | — | — | 15 | 21 | 13 | 8 |

| | | | |
|---|---|---|---|
| 1. Number of persons on Dispensary Registers on January 1st .. .. | 4,596 | 9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensaries | — |
| 2. Number of patients transferred from other areas and of "lost sight of" cases returned .. .. .. | 253 | 10. Number of consultations with medical practitioners :— (*a*) At Homes of Applicants .. (*b*) Otherwise .. .. .. | 198 4,502 |
| 3. Number of patients transferred to other areas and cases "lost sight of" .. .. .. .. .. | 534 | 11. Number of other visits by Tuberculosis Officers to Homes .. | 812 |
| 4. Died during the year .. .. .. | 680 | 12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes .. .. .. | 16,341 |
| 5. Number of observation cases under A (*b*) and B (*b*) above in which period of observation exceeded 2 months .. .. .. .. | 50 | 13. Number of †(*a*) Specimens of sputum, &c., examined .. .. .. (*b*) X-ray examinations made in connection with Dispensary work | 2,022 611 |
| 6. Number of attendances at the Dispensaries (including Contacts) .. | 14,874 | 14. Number of Insured Persons on Dispensary Registers on the 31st December .. .. .. .. | 2,674 |
| 7. †Number of attendances of non-pulmonary cases at Orthopædic Outstations for treatment or supervision .. .. .. .. | 147 | 15. Number of Insured Persons under Domiciliary Treatment on the 31st December .. .. .. | 103 |
| 8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for | | 16. Number of reports received during the year in respect of Insured Persons :— | |
| (*a*) "Light" treatment .. .. | 1,875 | (*a*) Form G.P. 17 .. .. .. | 54 |
| †(*b*) Other special forms of treatment | 838 | (*b*) Form G.P. 36 .. .. .. | 17 |

*A.—*New Cases.* The totals include 14 "cured" cases returned for treatment or observation during 1930.

†*Item* 7.—These are Heatherwood Hospital ex-patients who have attended the after-care clinic at Farringdon General Dispensary.

†*Item* 8 (*b*).—In addition to this figure, there were 576 attendances of patients at the County Sanatorium, Harefield, for artificial pneumothorax refills, but none of these patients was detained overnight.

†*Item* 13 (*a*).—In addition to this number, 48 examinations of sputum were made at the request of local medical practitioners, in respect of patients who were not on the dispensary register.

TABLE II.—RESIDENTIAL INSTITUTIONS.

(*a*) *Average Number of Beds available for Patients during the Year* 1930.

| — | Observation. | Pulmonary Tuberculosis. | | Non-Pulmonary Tuberculosis. | | Total. |
|---|---|---|---|---|---|---|
| | | "Sanatorium" Beds. | "Hospital" Beds. | Disease of Bones and Joints. | Other Conditions. | |
| Adult Males .. .. .. | 9 | 248 | 62 | 39 | 9 | 367 |
| Adult Females .. .. | 7 | 183 | 39 | 26 | 20 | 275 |
| Children under 15 .. .. | 8 | 56 | 1 | 115 | 35 | 215 |
| Total .. .. | 24 | 487 | 102 | 180 | 64 | 857 |

(*b*) *Return showing the Extent of Residential Treatment during the Year* 1930.

| — | In Institutions on Jan. 1. | Admitted during the year. | Discharged during the year. | Died in the Institutions. | In Institutions on Dec. 31. |
|---|---|---|---|---|---|
| Number of patients— | | | | | |
| Adults— | | | | | |
| Males .. .. .. | 339 | 735 | 578 | 150 | 346 |
| Females .. .. .. | 258 | 566 | 486 | 86 | 252 |
| Children— | | | | | |
| Males .. .. .. | 85 | 98 | 86 | 2 | 95 |
| Females .. .. .. | 70 | 101 | 77 | 6 | 88 |
| Number of Observation Cases | | | | | |
| Adults— | | | | | |
| Males .. .. .. | 4 | 73 | 76 | — | 1 |
| Females .. .. .. | 1 | 73 | 72 | — | 2 |
| Children— | | | | | |
| Males .. .. .. | 2 | 66 | 64 | — | 4 |
| Females .. .. .. | 5 | 47 | 50 | — | 2 |
| Total .. .. | 764 | 1,759 | 1,489 | 244 | 790 |

| —— | Total number of individual patients treated during the year 1930. | Number of admissions during the year. | Number of discharges during the year. |
|---|---|---|---|
| Patients admitted for one, two or three nights only for artificial pneumothorax refills (1 patient stayed seven nights)— | | | |
| Adults— | | | |
| Males .. .. .. .. .. | 2 | 2 | 2 |
| Females .. .. .. .. .. | 2 | 2 | 2 |
| Totals .. .. .. .. | 4 | 4 | 4 |

TABLE III.

*Return showing the immediate results of treatment of patients* and of observation of doubtful cases discharged from Residential Institutions during the year* 1930.

| Classification on admission to the Institution. | | Condition at time of discharge. | Duration of Residential Treatment in the Institution. | | | | | | | | | | | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Under 3 months. | | | 3—6 months. | | | 6—12 months. | | | More than 12 months. | | | |
| | | | M. | F. | Ch. | M. | F. | Ch. | M. | F. | Ch. | M. | F. | Ch. | |
| Pulmonary Tuberculosis. | Class T.B. minus. | Quiescent .. .. | 18 | 10 | 5 | 16 | 20 | 8 | 2 | 2 | 10 | — | 2 | 2 | 95 |
| | | Improved .. .. | 16 | 18 | 4 | 20 | 16 | 1 | 7 | — | 6 | 1 | 1 | 2 | 92 |
| | | No material improvement .. .. | 7 | 11 | 3 | 2 | 6 | 1 | 1 | — | — | — | — | — | 31 |
| | | Died in Institution .. | 1 | 4 | 1 | 1 | — | — | — | — | — | — | — | — | 7 |
| | Class T.B. plus. Group 1. | Quiescent .. .. | 12 | 4 | — | 16 | 14 | — | 7 | 2 | — | 1 | 1 | — | 57 |
| | | Improved .. .. | 39 | 29 | — | 56 | 56 | — | 27 | 17 | — | 8 | 4 | — | 236 |
| | | No material improvement .. .. | 12 | 15 | — | 16 | 15 | — | 8 | 5 | — | 3 | 4 | — | 78 |
| | | Died in Institution .. | 18 | 5 | — | 6 | 6 | — | 3 | 4 | — | 5 | 2 | — | 49 |
| | Class T.B. plus. Group 2. | Quiescent .. .. | 8 | 4 | — | 11 | 6 | — | 4 | 4 | — | 1 | 1 | — | 39 |
| | | Improved .. .. | 36 | 24 | — | 47 | 27 | — | 34 | 13 | — | 9 | 6 | — | 196 |
| | | No material improvement .. .. | 17 | 25 | — | 21 | 20 | — | 12 | 10 | — | 2 | 5 | — | 112 |
| | | Died in Institution .. | 23 | 18 | — | 15 | 9 | 2 | 13 | 4 | 1 | 6 | 3 | — | 94 |
| | Class T.B. plus. Group 3. | Quiescent .. .. | — | — | — | — | — | — | 2 | — | — | — | — | — | 2 |
| | | Improved .. .. | 3 | 4 | — | 13 | 9 | — | 4 | 5 | — | 3 | 2 | — | 43 |
| | | No material improvement .. .. | 12 | 5 | — | 8 | 7 | — | 1 | 10 | 1 | 3 | 2 | — | 49 |
| | | Died in Institution .. | 40 | 12 | — | 4 | 8 | — | 7 | 7 | — | 4 | 2 | — | 84 |
| Non-Pulmonary Tuberculosis. | Bones and Joints. | Quiescent or Arrested | 1 | 1 | 1 | — | 1 | 8 | 2 | 1 | 6 | 3 | 3 | 11 | 38 |
| | | Improved .. .. | — | 5 | 3 | — | 2 | 3 | 2 | — | 8 | 4 | 6 | 10 | 43 |
| | | No material improvement .. .. | 2 | 2 | 3 | 2 | — | 2 | — | — | 1 | 2 | — | 1 | 15 |
| | | Died in Institution .. | 1 | — | — | — | — | — | — | 2 | — | — | — | 2 | 5 |
| | Abdominal. | Quiescent or Arrested | 1 | 1 | 6 | 1 | 2 | 6 | — | 1 | 2 | — | 2 | 1 | 23 |
| | | Improved .. .. | — | 1 | 8 | — | 1 | 1 | — | — | — | — | 1 | — | 12 |
| | | No material improvement .. .. | — | — | 2 | — | — | — | 1 | — | — | — | — | 1 | 4 |
| | | Died in Institution .. | 1 | — | — | 1 | — | 1 | — | — | — | — | — | — | 3 |
| | Other Organs. | Quiescent or Arrested | — | — | 2 | 1 | 1 | — | — | 1 | — | 2 | — | — | 7 |
| | | Improved .. .. | — | 1 | 1 | 1 | 3 | 1 | — | — | — | 1 | — | — | 8 |
| | | No material improvement .. .. | 1 | 1 | — | — | 1 | — | — | — | — | — | 1 | — | 4 |
| | | Died in Institution .. | 1 | — | 1 | — | — | — | — | — | — | — | — | — | 2 |
| | Peripheral Glands. | Quiescent or Arrested | — | 1 | 1 | 1 | 2 | 4 | — | 1 | 10 | 1 | 1 | 1 | 23 |
| | | Improved .. .. | 1 | — | 6 | 1 | — | 4 | 1 | 1 | 2 | — | — | 1 | 17 |
| | | No material improvement .. .. | — | — | 3 | — | — | — | — | — | — | — | — | — | 3 |
| | | Died in Institution .. | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | | | Under 1 week. | | | 1–2 weeks. | | | 2–4 weeks. | | | More than 4 weeks. | | | |
| Observation for purpose of diagnosis. | | Tuberculous .. | 3 | 5 | — | 5 | 3 | 3 | 1 | 1 | 10 | — | — | 9 | 40 |
| | | Non-tuberculous .. | 7 | 6 | 1 | 49 | 39 | 2 | 9 | 15 | 19 | — | 2 | 66 | 215 |
| | | Doubtful .. .. | — | — | 2 | 2 | — | — | — | 1 | — | — | — | 2 | 7 |

* The definition of "patient" does not include persons in whom a definite diagnosis of tuberculosis has not been made.

## Table IV.—(*a*) Pulmonary Tuberculosis.

*Annual Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of* 1930, *arranged according to the years in which the Patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as defined on page* 121.

| Condition at the time of the last record made during the year to which the Return relates. | Previous to 1926. | | | | | 1926. | | | | | 1927. | | | | | 1928. | | | | | 1929. | | | | | 1930. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | | Class T.B. minus. | Class T.B. plus. | | | |
| | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). | | Group 1. | Group 2. | Group 3. | Total (Class T.B. plus). |
| *Alive*— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Discharged as cured— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... | 359 | 148 | 39 | 5 | 192 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 338 | 55 | 15 | 4 | 74 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 128 | 2 | 1 | — | 3 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 111 | 2 | — | — | 2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease arrested— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 187 | 89 | 41 | 4 | 134 | 34 | 27 | 5 | — | 32 | 25 | 17 | 5 | 1 | 23 | 18 | 4 | 2 | — | 6 | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 86 | 34 | 17 | 1 | 52 | 47 | 12 | 12 | 3 | 27 | 32 | 9 | 4 | — | 13 | 20 | 4 | 1 | — | 5 | — | — | — | — | — | — | — | — | — | — |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 52 | 3 | — | — | 3 | 19 | 1 | — | — | 1 | 22 | — | — | — | — | 16 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 44 | 1 | 2 | 1 | 4 | 10 | — | — | — | — | 14 | 1 | — | — | 1 | 8 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease not arrested— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 67 | 114 | 131 | 18 | 263 | 8 | 27 | 38 | 6 | 71 | 23 | 64 | 30 | 9 | 103 | 27 | 75 | 51 | 6 | 132 | 86 | 139 | 92 | 11 | 242 | 119 | 163 | 145 | 48 | 356 |
| Females ... ... | 44 | 57 | 65 | 14 | 136 | 18 | 21 | 24 | 5 | 50 | 23 | 30 | 33 | 5 | 68 | 41 | 63 | 60 | 8 | 131 | 76 | 108 | 65 | 16 | 189 | 110 | 108 | 112 | 17 | 237 |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 10 | 2 | 2 | 1 | 5 | 6 | — | 1 | — | 1 | 8 | 1 | — | — | 1 | 22 | 1 | 2 | — | 3 | 27 | — | 1 | — | 1 | 15 | — | — | — | — |
| Females ... ... | 11 | 4 | 3 | — | 7 | 4 | — | 1 | 1 | 2 | 4 | — | 1 | — | 1 | 20 | — | 1 | — | 1 | 11 | — | — | — | — | 18 | 1 | 1 | — | 2 |
| Condition not ascertained during the year ... ... | 1 | 1 | — | 1 | 2 | — | — | 1 | — | 1 | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lost sight of or otherwise removed from Dispensary Register | 702 | 343 | 286 | 82 | 711 | 155 | 105 | 69 | 19 | 193 | 111 | 101 | 74 | 24 | 199 | 91 | 79 | 60 | 23 | 162 | 66 | 57 | 50 | 17 | 124 | 28 | 25 | 21 | 11 | 57 |
| *Dead*— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 108 | 196 | 354 | 396 | 946 | 36 | 66 | 115 | 103 | 284 | 19 | 57 | 104 | 81 | 242 | 18 | 52 | 97 | 79 | 228 | 6 | 40 | 76 | 71 | 187 | 13 | 16 | 45 | 53 | 114 |
| Females ... ... | 63 | 99 | 199 | 242 | 540 | 27 | 25 | 95 | 87 | 207 | 23 | 52 | 89 | 57 | 198 | 15 | 36 | 90 | 42 | 168 | 16 | 29 | 65 | 55 | 149 | 10 | 13 | 29 | 27 | 69 |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 3 | 5 | 4 | 6 | 15 | — | — | 1 | 1 | 2 | 1 | — | — | — | — | 1 | — | — | 1 | 1 | 1 | — | 1 | 1 | 2 | 2 | — | — | — | — |
| Females ... ... | 15 | 1 | 5 | 6 | 12 | 3 | — | 6 | 6 | 12 | 1 | 1 | 3 | 2 | 6 | — | — | 1 | 2 | 3 | — | — | 2 | 3 | 5 | — | — | 1 | — | 1 |
| Totals ... ... | 2,329 | 1,156 | 1,164 | 781 | 3,101 | 367 | 284 | 368 | 231 | 883 | 307 | 333 | 343 | 179 | 855 | 297 | 314 | 365 | 161 | 840 | 289 | 373 | 352 | 174 | 899 | 315 | 326 | 354 | 156 | 836 |

## (*b*) Non-Pulmonary Tuberculosis.

*Annual Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of* 1930, *arranged according to the years in which the Patients first came under Public Medical Treatment, and their classification as defined on page* 121.

| Condition at the time of the last record made during the year to which the Return relates. | Previous to 1926. | | | | | 1926. | | | | | 1927. | | | | | 1928. | | | | | 1929. | | | | | 1930. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. | Bones and Joints. | Abdominal. | Other Organs. | Peripheral Glands. | Total. |
| *Alive*— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Discharged as cured— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 46 | 11 | 14 | 12 | 83 | 3 | 2 | 1 | — | 6 | 1 | 1 | 2 | — | 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 24 | 14 | 3 | 17 | 58 | 2 | 1 | 1 | 1 | 5 | 1 | — | — | — | 1 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 65 | 29 | 12 | 50 | 156 | 2 | 2 | — | 4 | 8 | — | 2 | — | 4 | 6 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Females ... ... | 55 | 11 | 13 | 59 | 138 | — | 2 | 1 | 5 | 8 | 1 | — | 2 | 1 | 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Disease arrested— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 17 | 1 | 4 | 6 | 28 | 5 | — | 2 | 1 | 8 | 7 | — | 2 | 1 | 10 | 6 | — | 1 | — | 7 | — | 1 | — | 1 | 2 | — | — | — | — | — |
| Females ... ... | 7 | 1 | 4 | 4 | 16 | 4 | 3 | 2 | 2 | 11 | 8 | 3 | 1 | 2 | 14 | 5 | 3 | 3 | 5 | 16 | 3 | 2 | 1 | 3 | 9 | — | — | — | — | — |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 22 | 6 | 3 | 8 | 39 | 7 | 1 | 1 | 3 | 12 | 8 | 9 | 3 | 11 | 31 | 10 | 5 | — | 13 | 28 | 3 | 4 | — | 5 | 12 | 1 | 1 | — | 1 | 3 |
| Females ... ... | 16 | 4 | 4 | 7 | 31 | 4 | 2 | 1 | 4 | 11 | 4 | 5 | — | 6 | 15 | 3 | 3 | 1 | 2 | 9 | 2 | 1 | 1 | 5 | 9 | — | — | — | 1 | 1 |
| Disease not arrested— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 21 | — | 4 | 2 | 27 | 1 | — | 1 | — | 2 | 9 | — | 4 | — | 13 | 10 | 1 | 2 | — | 13 | 15 | 2 | 6 | 2 | 25 | 27 | 7 | 10 | 6 | 50 |
| Females ... ... | 12 | — | 8 | 1 | 21 | 8 | 1 | — | — | 9 | 6 | 2 | 5 | 1 | 14 | 11 | 3 | 5 | 2 | 21 | 8 | 9 | 5 | 3 | 25 | 21 | 10 | 9 | 4 | 44 |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 17 | 2 | 3 | 1 | 23 | 6 | 1 | — | 2 | 9 | 8 | 2 | — | — | 10 | 8 | 1 | 1 | 11 | 21 | 28 | 5 | — | 7 | 40 | 32 | 10 | 1 | 18 | 61 |
| Females ... ... | 16 | — | 5 | 2 | 23 | 6 | — | — | 3 | 9 | 9 | 1 | 1 | 1 | 12 | 15 | — | 1 | 3 | 19 | 19 | 2 | 2 | 11 | 34 | 23 | 5 | 2 | 18 | 48 |
| Transferred to Pulmonary ... ... | 4 | 1 | 2 | 4 | 11 | 3 | — | — | 1 | 4 | — | 1 | 2 | 2 | 5 | 1 | — | — | 2 | 3 | — | — | — | 1 | 1 | — | — | — | — | — |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Condition not ascertained during the year ... ... | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Lost sight of or otherwise removed from Dispensary Register | 178 | 35 | 49 | 76 | 338 | 40 | 14 | 12 | 31 | 97 | 29 | 11 | 9 | 15 | 64 | 19 | 4 | 6 | 13 | 42 | 16 | 8 | 6 | 12 | 42 | 7 | 2 | 3 | 7 | 19 |
| *Dead*— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adults— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 18 | 5 | 7 | 1 | 31 | 6 | 2 | — | — | 8 | 2 | 3 | 1 | — | 6 | 5 | 1 | 1 | — | 7 | 1 | 2 | 3 | — | 6 | 2 | 1 | — | — | 3 |
| Females ... ... | 14 | 4 | 3 | 1 | 22 | 4 | 1 | — | — | 5 | 4 | 1 | — | — | 5 | 2 | — | 1 | — | 3 | 2 | 1 | — | — | 3 | — | 2 | 1 | — | 3 |
| Children— | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Males ... ... | 11 | 5 | 1 | 1 | 18 | — | 1 | — | — | 1 | 2 | 2 | — | 1 | 5 | 1 | 2 | — | 1 | 4 | — | — | — | — | — | — | — | 1 | — | 1 |
| Females ... ... | 7 | 3 | — | — | 10 | 1 | 2 | 1 | — | 4 | 1 | 2 | — | — | 3 | 3 | — | 3 | — | 6 | — | — | — | — | — | 1 | 1 | — | — | 2 |
| Totals ... ... | 550 | 132 | 139 | 252 | 1,073 | 102 | 35 | 23 | 57 | 217 | 100 | 45 | 32 | 45 | 222 | 99 | 23 | 25 | 52 | 199 | 97 | 37 | 24 | 50 | 208 | 114 | 39 | 27 | 55 | 235 |

In the first column of Table IV on page 126 are grouped those persons who first came under public medical treatment previous to 1926. By the end of 1930, therefore, every member of this group then living had been under observation for at least five years, and the majority for considerably longer periods. The total number of pulmonary cases in the group under consideration is 5,430, but of these a large number, 1,416, have been lost sight of, either on account of their having left the County, or because they have signified they no longer desire public medical treatment, or for a variety of other reasons. Deducting this number, together with a small number of persons whose condition, for some reason, could not be ascertained during the year, there remains a balance of 4,014 patients, the condition of whom was known at the end of 1930.

These may be analysed as follows :—

| Pulmonary Tuberculosis. Class. | Total number for whom record is available. | Disease cured. | | Disease arrested. | | Dead. | | Not arrested. | |
|---|---|---|---|---|---|---|---|---|---|
| | | No. | Per cent. | No. | Per cent. | No. | Per cent. | No. | Per cent. |
| T.B. minus .. | 1,626 | 936 | 57 | 369 | 23 | 189 | 12 | 132 | 8 |
| T.B plus, Gp. I. | 812 | 207 | 25 | 127 | 16 | 301 | 37 | 177 | 22 |
| T.B. plus, Gp. II | 878 | 55 | 6 | 60 | 7 | 562 | 64 | 201 | 23 |
| T.B. plus, Gp. III | 698 | 9 | 1 | 6 | 1 | 650 | 93 | 33 | 5 |
| All Classes .. | 4,014 | 1,207 | 30 | 562 | 14 | 1,702 | 42 | 543 | 14 |

## Venereal Diseases.

The scheme which the Middlesex County Council has adopted to deal with the problems of the diagnosis and treatment of veneral diseases, is based upon a utilisation of the resources of the general and special voluntary hospitals of the metropolis. From every part of Middlesex one or more of such hospitals are accessible without much difficulty ; and, moreover, a considerable proportion of Middlesex residents travel daily to London to their work. Having these considerations in mind, the County Council in 1916 entered into a joint scheme with the London County Council and the councils of the surrounding counties and county boroughs, by the terms of which patients resident within the areas of any of the participating authorities receive treatment for venereal diseases at certain of the London hospitals, the cost being shared between the authorities on the basis of user. The parties to the joint agreement are the counties of London, Middlesex, Buckingham, Essex, Hertford, Kent and Surrey, and the county boroughs of Croydon, East Ham and West Ham.

The scheme has proved very satisfactory in operation, and periodical conferences between the medical officers of the participating authorities have enabled such improvements or amendments, as experience has shown to be desirable, to be incorporated in the scheme from time to time. In addition to being a member of the joint scheme, the County Council has entered into an agreement with the authorities of the Prince of Wales's Hospital, Tottenham, whereby a venereal diseases clinic is in operation thereat, which serves the needs of the somewhat densely populated area in the north-eastern part of the County. The schedule on pages 132 and 133 gives information regarding hospitals at which out-patient clinics are available for the free treatment of sufferers from venereal diseases. It will be seen that the provision, which has been made for diagnosis and treatment, is extensive ; the arrangements which exist at many of the hospitals on the list whereby clinics remain open throughout the day provide a service of great value in the control of venereal diseases. Included in the scheme is in-patient accommodation at many of the hospitals in London in order to deal with cases of such severity as call for institutional treatment, and hostels are provided for the accommodation of expectant mothers whose pregnancies are complicated by venereal diseases. Information as to the extent to which these facilities, both for out-patient and in-patient treatment, have been utilised by Middlesex residents at each of the hospitals in the scheme during the past year is given in the table which appears on page 134.

The total number of Middlesex new patients dealt with during the year was 2,601, an increase of 273 on the total for 1929. Of these cases, 492 were suffering from syphilis (an increase of 50), 5 from soft chancre (an increase of 2), 1,041 from gonorrhœa (a decrease of 68), whilst 1,063 (an increase of 289) were found not to be suffering from venereal disease. The attendances of Middlesex patients totalled 65,253 (an increase of 8,308), and the number of in-patient days of treatment was 2,630 (an increase of 376).

The extent of the work carried out under the Joint Scheme may be judged from the fact that the total number of *new cases from all areas* dealt with at the London hospitals during 1930 was 26,869 (an increase of 2,083), of which 5,225 (an increase of 294) were suffering from syphilis, 11,123

(an increase of 349) gonorrhœa, 359 (an increase of 79) soft chancre, while 10,162 (an increase of 1,361) were found to be not suffering from venereal disease.

The attendances totalled 836,219 (an increase of 67,347), and the number of in-patient days of treatment was 51,216 (a decrease of 304). Twenty-five Middlesex women (an increase of 7) in an infective condition were accommodated in hostels during their pregnancies, and occupied beds for an aggregate of 2,985 days (an increase of 831) or 9·8 per cent. of the total of all participating authorities.

On page 135 is set out a tabulated statement showing the number of Middlesex new cases treated during the past five years, classified according to the type of venereal infection from which they were suffering. The steadily increasing numbers of cases treated is not to be interpreted as necessarily indicating an increasing incidence of venereal disease, but rather points to a greater readiness on the part of the public to avail themselves of the facilities for advice and treatment which the County Council has provided. The marked proportional increase in the number of attendances made is gratifying as an indication of a growing appreciation on the part of infected persons of the need for protracted treatment.

In order that knowledge of the facilities afforded by the Council's scheme may be widespread throughout the County, since the inception the County Medical Officer has circularised all medical practitioners in the County each year, pointing out the provisions of the scheme, enclosing a series of leaflets and forms in connection therewith, and forwarding a list, similar to that set out on pages 132 and 133, giving information as to the hospital facilities available. In the case of local medical officers of health the hospital list is offered in poster form, and as many copies for display as may be desired are supplied. Practising midwives in the County, similarly, are supplied annually with information as to the scheme, and the list of hospitals, with days and times at which patients should attend, is forwarded to each.

An annual grant is paid to the British Social Hygiene Council by the County Council, and the former arranges for the carrying out of press propaganda by the insertion of suitable articles and notices in newspapers circulating in the County. Lastly, the County Council pays the cost of lectures, &c., provided by the British Social Hygiene Council on the subject of venereal diseases, if such lectures are desired or approved by the local district council in the area in which it is proposed they should be given.

Under the Council's scheme medical practitioners (subject to certain conditions of approval laid down by the Ministry of Health), may receive free supplies of arsenobenzene compounds for the treatment of their own patients.

The number of doctors practising in Middlesex who applied during 1930 to be placed on the approved list was 5. The total number now is 76. In addition to these there is a considerable number of doctors in London, by many of whom Middlesex residents are treated, who also are on the list of approved practitioners.

All doctors in practice in the County may, without cost, consult with the medical officers of the treatment centres, receive instruction at the centres in modern methods of treatment of venereal diseases, and obtain reports on pathological materials submitted for examination.

The number of pathological examinations of specimens submitted by private practitioners in respect of Middlesex residents during 1930 was as follows :—

| —— | Hospitals in Joint Scheme. | Prince of Wales's Hospital, Tottenham. | Total. |
|---|---|---|---|
| For detection of spirochaetes .. .. .. | 1 | 11 | 12 |
| For detection of gonococci .. .. .. .. | 192 | 105 | 297 |
| For Wasserman reaction .. .. .. .. | 803 | 592 | 1,395 |
| Other examinations .. .. .. .. .. | 106 | — | 106 |
| Totals .. .. .. .. .. | 1,102 | 708 | 1,810 |

No evidence came to the notice of the County Council which pointed to the treatment of patients suffering from venereal disease by persons other than duly qualified medical practitioners, nor was there evidence of any other breach of the Venereal Diseases Act, 1917.

*List of Hospitals at which clinics are available for the free treatment of patients*

| Name and address of Hospital. | Department. | Days and times of clinics. | | | | | |
|---|---|---|---|---|---|---|---|
| | | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
| HOSPITALS IN LONDON. | | | | | | | |
| Albert Dock ... ... ... ... Royal Albert Docks, E. 16. | Males ... ... ... ... ... | 9 a.m.—6 p.m. | 9 a.m.—5 p.m. | 9 a.m.—4 p.m. | 9 a.m.—5 p.m. | 9 a.m.—6 p.m. | 9 a.m.—12.30 p.m. |
| | Females ... ... ... ... ... | — | — | 2 p.m.—4 p.m. | — | — | — |
| Guy's ... ... ... ... ... St. Thomas-street, S.E. 1. | Males, females and children ... ... | Daily treatment between 9 a.m. and 8 p.m. Bank Holidays 10 a.m. to noon. | | | | | |
| Hospital for Sick Children ... Great Ormond-street, W.C. 1. | Male and female children ... | 9 a.m.—10 a.m.<br>2 p.m.—4 p.m. | 9 a.m.—10 a.m.<br>2 p.m.—4 p.m. | 9 a.m.—10 a.m.<br>— | 9 a.m.—10 a.m.<br>2 p.m.—4 p.m. | 9 a.m.—10 a.m.<br>2 p.m.—4 p.m | 9 a.m.—10 a.m.<br>— |
| King's College ... ... ... ... Denmark-hill, S.E. 5. | Syphilis—Males ... ... ... ... | — | 5.30 p.m. | 11.30 a.m. | 2.30 p.m. | 11.30 a.m. | — |
| | Females ... ... ... | — | 5 p.m. | 11 a.m. | 2 p.m. | 11 a.m. | — |
| | Gonorrhœa (Clap)—Males ... ... | 2 p.m. | — | — | 5 p.m. | — | — |
| | Females ... ... | 6 p.m. | — | 6 p.m. | — | 2 p.m. | — |
| Whitechapel (L.C.C.) Clinic ... ... Turner-street, Mile End. | Males, females and children ... ... | Daily treatment between 8 a.m. and 9 p.m. Sundays—Intermediate treatment 10 a.m.—1 p.m. and 4 p.m.—7 p.m. | | | | | |
| Metropolitan ... ... ... ... Kingsland-road, E. 8. | Males and females ... ... ... | 6 p.m.—7 p.m. | — | Noon—1 p.m.<br>Intermediate treatment daily. | — | 6 p.m.—7 p.m. | — |
| Middlesex ... ... ... ... Berners-street, W. 1. | Skin ... ... ... ... ... | — | 1.30 p.m. | — | — | 1.30 p.m. | — |
| | Syphilis—Males and females ... ... | 5.30 p.m.—7 p.m. | — | — | 5 p.m.—8 p.m. | — | — |
| | Gonorrhœa—Males ... ... ... | — | 5.30 p.m.—7.30 p.m. | — | — | 5.30 p.m.—7.30 p.m. | — |
| | | | | Daily treatment by arrangement. | | | |
| | Females ... ... ... | 6 p.m.—7 p.m. | — | — | 6 p.m.—8 p.m. | — | — |
| | | | | Daily treatment by arrangement. | | | |
| Miller General ... ... ... ... Greenwich, S.E. 10. | Males and females ... ... ... | Daily treatment between 8 a.m. and 8 p.m. | | | | | |
| Royal Free ... ... ... ... Gray's Inn-road, W.C. 1. | Females and children ... ... ... | 10 a.m.—7 p.m. | 10 a.m.—7 p.m. | 10 a.m.—7 p.m. | 10 a.m.—7 p.m. | 10 a.m.—7 p.m. | 10 a.m.—3 p.m. |
| | | | | Intermediate treatment daily between 7 a.m. and 9.30 p.m. | | | |
| Royal London Ophthalmic (Moorfields) City-road, E.C. 1. | Males ... ... ... ... ... | 5.30 p.m. | — | — | — | 5.30 p.m. | — |
| | Females ... ... ... ... ... | — | — | 1 p.m. | — | — | — |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Royal Northern ... ... ... Holloway-road, N. 7. | Skin—Males and females ... ... | — | — | 1 p.m. | 1 p.m. | — | — |
| | Syphilis—Males ... ... ... ... | 6 p.m.—8 p.m. | — | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | — |
| | Females and children ... | 2.30 p.m.—4.30 p.m. | 6 p.m.—8 p.m. | — | 6 p.m.—8 p.m. | — | — |
| | Gonorrhœa—Males and females ... | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | 6 p.m.—8 p.m. | — |
| | Females and children ... | 2.30 p.m.—4.30 p.m. | — | — | — | — | — |
| St. George's ... ... ... ... Hyde Park-corner, S.W. 1. | Syphilis ... ... ... ... ... | — | 6 p.m.—7 p.m. | 10 a.m.—noon, 6 p.m.—7 p.m. | — | 6 p.m.—7 p.m. | 10 a.m.—noon |
| | Gonorrhœa ... ... ... ... | 6 p.m.—7 p.m. | — | | 6 p.m.—7 p.m. | — | |
| | Daily treatment from 8.30 a.m to 1 p.m. and 5 p.m. to 8.30 p.m. | | | | | | |
| St. John's (Lewisham)... ... ... Morden-hill, Lewisham, S.E. 13. | Males ... ... ... ... ... | — | 5 30 p.m. | — | 9.30 a.m. | — | — |
| | Females and children ... ... ... | 3 p.m. | — | — | 11 a.m. & 6.15 p.m. | — | — |
| | Patients can also be seen daily from 8 a.m. to 10 p.m. | | | | | | |
| St. Mary's ... ... ... ... Cambridge-place, Paddington, W. 2. | Males ... ... ... ... ... | — | 6 p.m.—7 p.m. | — | — | 6 p.m.—7 p.m. | — |
| | Females ... ... ... ... ... | — | — | 5 p.m.—7 p.m. | — | — | — |
| St. Paul's ... ... ... ... Endell-street, W.C. 2. | Males, females and children ... ... | Daily treatment between 8 a.m. and 10 p.m. Sundays and Bank Holidays from 10 a.m. to noon and 6 p.m. to 8 p.m. | | | | | |
| St. Thomas's ... ... ... ... Westminster Bridge-road, S.E.1. | Males ... ... ... ... | Daily treatment between 8 a.m. and 10 p.m. Sundays and Bank Holidays from 10 a.m. to noon. | | | | | |
| | Females and children ... | | | | | | |
| Seamen's... ... ... ... ... Greenwich, S.E. 10. | Males ... ... ... ... ... | 7 p.m.—9 p.m. | 7 p.m.—9 p.m. | 7 p.m.—9 p.m. | — | — | — |
| | NOTE.—If merchant seamen are unable to attend at these hours, they may present themselves for treatment at any other time. | | | | | | |
| South London for Women ... ... South Side, Clapham Common, S.W. 4. | Females and children ... ... ... | — | 6 p.m.—8 p.m. | 10 a.m. | — | 6.30 p.m.—8.30 p.m. | — |
| University College ... ... ... Gower-street, W.C. 1. | Special (Venereal)—Males ... ... | 5.30 p.m.—7 p.m. | — | 5.30 p.m.—7 p.m. | — | 5.30 p.m.—7 p.m. | 1.30 p.m.—3 p.m. |
| | Females ... ... | 5.30 p.m.—7 p.m. | — | — | 5.30 p.m. | 5.30 p.m.—7 p.m. | — |
| | Daily treatment (Sundays excepted), 9 a.m. to 10 p.m. | | | | | | |
| West London ... ... ... ... Hammersmith-road, W. 6. | Males and females ... ... ... | Daily treatment between 7.30 a.m. and 7.30 p.m.; Sundays from 10 a.m. to noon. | | | | | |
| Westminster ... ... ... ... Broad Sanctuary, S.W. 1. | Males and females ... ... ... | New cases up to 1 p.m. | New cases up to 1 p.m. | New cases up to 1 p.m. | New cases up to 1 p.m. | New cases up to 1 p.m. | — |
| | Special sessions ... ... ... ... | 5.30 p.m.—7.30 p.m. | 5.30 p.m.—7.30 p.m. | 5.30 p.m.—7.30 p.m. | 5.30 p.m.—7.30 p.m. | — | — |
| | Intermediate treatment daily from 11 a.m. to 7.30 p.m. Saturdays until noon. | | | | | | |
| HOSPITAL IN MIDDLESEX. | | | | | | | |
| Prince of Wales's ... ... ... Tottenham, N. 15. | Women ... ... ... ... ... | 6 p.m.—7 p.m. | — | 4.30 p.m.—6 p.m. | — | 5.30 p.m.—6.30 p.m. | — |
| | Men ... ... ... ... ... | 7 p.m.—8 p.m. | — | 6 p.m.—7 p.m. | — | 6.30 p.m.—8 p.m. | — |
| | Irrigations ... ... ... ... | From 8 a.m. | From 8 a.m. | From 8 a.m. | From 8 a.m. | From 8 a.m. | 10 a.m.—12 noon |

## Venereal Diseases.

*Statement of Work done by Individual Hospitals in connection with Middlesex Patients during* 1930.

| Hospital. | New Cases. | | | | | Total attendances. | No. of in-patient days. | Arsenobenzene compounds. Doses given. |
|---|---|---|---|---|---|---|---|---|
| | Syphilis. | Soft Chancre. | Gonorrhœa. | Not V.D. | Total. | | | |
| Gt. Ormond Street .. | 7 | — | 2 | 118 | 127 | 998 | 470 | 475 |
| Guy's .. .. .. | 8 | — | 29 | 21 | 58 | 839 | 172 | 41 |
| King's College .. .. | — | — | — | 2 | 2 | 46 | — | — |
| London (6 months) .. | 2 | — | 4 | 11 | 17 | 737 | 37 | 23 |
| Metropolitan .. .. | 2 | 1 | 11 | 8 | 22 | 345 | — | 11 |
| Middlesex .. .. | 12 | — | 40 | 8 | 60 | 2,371 | 9 | 240 |
| Royal Free .. .. | 17 | — | 60 | 86 | 163 | 2,118 | 197 | 167 |
| Royal London Ophthalmic .. .. | 21 | — | 6 | — | 27 | 446 | 109 | 178 |
| Royal Northern .. | 90 | 1 | 212 | 91 | 394 | 9,479 | 65 | 747 |
| St. George's .. .. | 6 | — | 23 | 5 | 34 | 483 | 32 | 87 |
| St. Mary's .. .. | 58 | — | 99 | 41 | 198 | 2,698 | 28 | 428 |
| St. Paul's .. .. | 12 | — | 73 | 87 | 172 | 7,541 | 160 | 107 |
| St. Thomas's .. .. | 31 | 3 | 87 | 151 | 272 | 5,879 | 329 | 471 |
| Seamen's .. .. | 2 | — | 1 | — | 3 | 24 | — | 5 |
| South London for Women .. .. | — | — | — | — | — | 35 | — | — |
| University College .. | 21 | — | 41 | 5 | 67 | 3,628 | — | 236 |
| West London .. .. | 118 | — | 240 | 324 | 682 | 20,490 | 681 | 1,231 |
| Westminster .. .. | 3 | — | 6 | 1 | 10 | 412 | — | 14 |
| Salvation Army Mothers | — | — | 2 | 2 | 4 | 149 | 49 | — |
| Children's, Waddon .. | — | — | 3 | — | 3 | — | 250 | — |
| Whitechapel Clinic (6 months) .. .. | 3 | — | 4 | — | 7 | 450 | — | 18 |
| Joint London Hospitals, Totals .. .. | 413 | 5 | 943 | 961 | 2,322 | 59,168 | 2,588 | 4,479 |
| *Prince of Wales's, Tottenham .. . | 79 | — | 98 | 102 | 279 | 6,085 | 42 | 598 |
| Grand Totals .. | 492 | 5 | 1,041 | 1,063 | 2,601 | 65,253 | 2,630 | 5,077 |

* These figures do not include 68 new cases not residents of the County but treated at the hospital, the cost being borne by the Middlesex County Council under the agreement with the hospital.

*Comparative Statement for the past Five Years.*

MIDDLESEX Patients treated at

| | London Hospitals. | | | | | Prince of Wales's Hospital, Tottenham.† | | | | | Richmond Hospital.* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1926. | 1927. | 1928. | 1929. | 1930. | 1926. | 1927. | 1928. | 1929. | 1930. | 1926. | 1927. | 1928. | 1929. | 1930. |
| Number of persons dealt with at the Clinics for the first time and found to be suffering from :— | | | | | | | | | | | | | | | |
| Syphilis .. .. .. | 335 | 380 | 382 | 380 | 413 | 60 | 45 | 59 | 62 | 79 | 26 | 6 | — | — | — |
| Soft chancre .. .. | 8 | 3 | 11 | 1 | 5 | — | — | 2 | 2 | — | 1 | — | — | — | — |
| Gonorrhœa .. .. .. | 821 | 892 | 874 | 1,010 | 943 | 79 | 103 | 95 | 99 | 98 | 58 | 12 | — | — | — |
| Not suffering from V.D. .. | 609 | 735 | 814 | 661 | 961 | 82 | 70 | 86 | 113 | 102 | 41 | 11 | — | — | — |
| Total .. | 1,773 | 2,010 | 2,081 | 2,052 | 2,322 | 221 | 218 | 242 | 276 | 279 | 126 | 29 | — | — | — |
| Total attendances .. | 38,744 | 44,604 | 49,658 | 51,877 | 59,168 | 5,129 | 5,400 | 4,937 | 5,068 | 6,085 | 3,437 | 978 | — | — | — |
| Number of "in-patient" days of treatment .. .. .. | 3,383 | 4,347 | 2,192 | 2,154 | 2,588 | 99 | 303 | 172 | 100 | 42 | — | — | — | — | — |
| Number of doses of arseno-benzene compounds given .. | 3,791 | 3,990 | 4,402 | 3,881 | 4,479 | 390 | 240 | 450 | 437 | 598 | 397 | 105 | — | — | — |

* This clinic was closed on 19th April, 1927.

† These figures do not include patients not residents of the County, but treated at the hospital, the cost being borne by the Middlesex County Council under the agreement with the hospital.

# APPENDIX I.

## EXTRACT FROM THE ANNUAL REPORT ON THE WORK OF NORTH MIDDLESEX HOSPITAL DURING 1930, PREPARED BY THE MEDICAL SUPERINTENDENT.

### Medical and Nursing Staff.

Resident—

*Medical Superintendent and Surgical Director—*

Lieut.-Col. Spencer Mort, M.D., Ch.M.(Glasg.), F.R.C.S., F.R.S.(Edin.), F.C.S.(Lond.).

*Deputy Medical Superintendent—*

A. W. Gregorson, M.D., Ch.B., F.R.F.P.S.(Glasg.).

*Assistant Surgeon—*

R. L. Galloway, M.B., Ch.B., F.R.C.S.(Edin.).

*Second Assistant Surgeon—*

K. A. K. Hudson, M.B., Ch.M.(Sydney).

*Assistant Medical Officers—*

R. V. Horniman, M.B., Ch.M.(Sydney).
H. O. Blauvelt, M.D., C.M. (Dalhousie), F.R.C.S.(Eng.).
W. Freeborn, M.B., Ch.M.(Sydney), M.M.S.A.(Lond.).
C. R. McCash, M.B., Ch.B.(St. And.), F.R.C.S.(Edin.).

*Temporary Assistant Medical Officers—*

H. K. Houston, M.B., B.S.(Sydney).
P. J. Nagle, M.B., B.Ch., B.A.O.(Dublin).
D. Simpson, M.B., Ch.B.(Glasg.).

*Medical Officer for Special Duties—*

Miss E. A. Pennycuick, M.B., Ch.B.(Glasg.).

*Matron—*

Miss A. Dowbiggin, M.B.E., R.R.C.

*Assistant Matron—*

Miss E. R. Wheeldon.

Non-Resident—

*Visiting Advisory Physicist—*

Prof. Sidney Russ, C.B.E., D.Sc., F.Inst.P.

*Throat Surgeons—*

L. G. Brown, *M.C.*, M.A., M.D.(Lond.), F.R.C.S.(Eng.).
F. D. Cairns, M.B., Ch.B., F.R.C.S.(Edin.).

*Massage and Electricity—*

P. Figdor, M.B., Ch.B.(Glasg.).

*Radiologists—*

E. E. Holdsworth, M.B., Ch.B.(Leeds), D.M.R.E.
N. P. Henderson, M.D., Ch.B.(Glasg.), D.M.R.E.

*Pathologist—*

T. H. C. Benians, F.R.C.S.(Eng.).

*Anæsthetists—*

F. P. de Caux, L.R.C.P., M.R.C.S.(Eng.).
J. H. T. Challis, L.R.C.P., M.R.C.S.(Eng.).

*Surgeon Oculist—*

Miss F. Ramsay, M.D., B.S.(Durham), D.P.H., D.O.M.S.(Lond.).

*Dentist—*

G. E. Royston, L.D.S., R.C.S.(Eng.).

## History.

1910.—Opening of the hospital with 500 beds, as a separate unit, under a whole-time medical superintendent, matron, and steward, by the special order of the Rt. Hon. John Burns, M.P.

1915.—Conversion of the hospital into Edmonton Military Hospital, with accommodation up to 2,000 beds, and auxiliaries up to 4,000 beds—the largest military hospital in the Eastern Command, which is the largest area in England. Over 45,000 military patients treated.

1920.—Military organisation ceased, and hospital was reorganised for civilian purposes, with about 950 beds, with 230 beds for infirm cases in Edmonton House.

1921.—Local councils joined in the maternity scheme ; the first Poor Law hospital to be authorised, by permission of the Ministry of Health, to conduct full council maternity services, and the only hospital in the area with beds for councils for ante-natal and maternity services.

1922.—Inauguration of out-patient department, where ex-service pensioners were still being treated.

1925.—Ex-service pensioners ceased attending.

1928.—Opening of "Edgbury" convalescent home of 84 beds. This is now used by the County Council as a general convalescent home and is no longer reserved for North Middlesex Hospital cases.

1929.—Opening of 50 beds for temporary accommodation of children at Chase Farm Schools. These beds are still in use.

1930.—Opening of radium and deep-therapy X-ray treatment centre, and laying of foundation stone of new wing of nurses' home, by the Rt. Hon. Arthur Greenwood, P.C., M.P., Minister of Health.

Transfer of the Hospital and associated establishments to the Middlesex County Council.

Opening of additional operating theatre.

Plans prepared for extra accommodation by the conversion of a block at Chase Farm Schools for the accommodation of about 36 chronic patients.

## General Figures.

| Year ended 31st March. | Total admissions, including Births. | Total Births, not including Still Births. | Highest Number of Patients in Year. | Lowest Number of Patients in Year. | X-ray Treatments. | Total Number of Out-Patients, excluding Pensioners. |
|---|---|---|---|---|---|---|
| 1911 (8 mos.) .. | 1,761 | 67 | — | — | — | — |
| 1912 .. .. | 2,655 | 112 | — | — | — | — |
| 1913 .. .. | 2,594 | 93 | — | — | — | — |
| 1914 .. .. | 2,432 | 83 | — | — | — | — |
| 1915 .. .. | 5,786 | 105 | — | — | — | — |
| War period—figures not comparable. | | | | | | |
| 1921 (5 mos.) .. | 1,947 | 117 | 722 | 603 | — | — |
| 1922 .. .. | 5,398 | 464 | 880 | 775 | — | — |
| 1923 .... .. | 6,143 | 608 | 936 | 807 | 1,443 | 2,383 |
| 1924 .. .. | 6,907 | 743 | 1,004 | 816 | 2,261 | 4,482 |
| 1925 .. .. | 6,907 | 744 | 969 | 814 | 2,610 | 5,039 |
| 1926 .. .. | 7,487 | 805 | 945 | 756 | 2,523 | 6,658 |
| 1927 .. .. | 8,688 | 871 | 965 | 786 | 3,406 | 8,700 |
| 1928 .. .. | 8,822 | 878 | 963 | 786 | 3,944 | 11,559 |
| 1929 .. .. | 9,797 | 988 | 958 | 764 | 6,075 | 17,583 |
| 1930 .. .. | 10,443 | 1,020 | 968 | 781 | 6,061 | 26,956 |
| 31st Dec., 1930 (9 mos.) .. | 8,216 | 862 | 979 | 808 | 5,109 | 22,650 |

These general figures represent the total work of the hospital for a period of years. A comparison of the figures for 1st April to 31st December, a period of nine months only, with the rest of the table shows a continued increase in expansion and growth of all departments. It is very important to notice that in this report all the figures quoted are for a period of nine months, and if this is borne in mind, the real increase may be seen as against what may appear to be a diminution in the figures regarding the working of the departments.

A study of the above figures will show that for the number of beds available (950) there has been a large turnover, and this means a great deal of work. The exact number of beds in hospital can never be given. It runs somewhere between 900 and 1,000, but at times when the greatest pressure is in the wards (in the winter) with all the regular routine work in addition to seasonal diseases

affecting the respiratory organs, &c., extra beds have to be put up, whereas, in summer time, when this pressure should not be quite so great, a great deal of open-air accommodation is more easily available on the balconies. It is, however, the turnover in acute cases which is the only true index of the work done.

The second column of births, &c., is very striking, showing the increase in popularity of the maternity department, which is now a large "hospital within a hospital."

In the third column it will be noted that there has been a higher number of patients in the wards than has been the case for the last seven years, and the same obtains in the lowest number of patients.

X-ray treatments do not represent actually the number, as certain of these treatments are given in cycles in connection with Roentgen deep-therapy, and these cycles comprise a large number of treatments. The deep-therapy treatments are excluded from these figures, and so many of these treatments are given now, that they will soon come up to, and outstrip, the ordinary X-ray treatments.

ADMISSIONS EACH MONTH IN THE YEAR.

| Year. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|
| 1930 .. .. | 919 | 948 | 944 | 936 | 856 | 883 | 928 | 883 | 919 |
| 1929 .. .. | 881 | 924 | 807 | 854 | 822 | 868 | 898 | 804 | 864 |

The figures for the corresponding periods in the previous year are given for comparison. This table clearly shows that in every month in the year admissions have been heavier than ever, illustrating the remarks already made on this matter.

MORTALITY.

Total number of deaths.. .. .. .. .. .. 1,077

| Under 1 Year. | 1–3 Years. | 3–16 Years. | 16–40 Years. | 40–50 Years. | 50–60 Years. | 60–70 Years. | Over 70 Years. |
|---|---|---|---|---|---|---|---|
| 76 | 13 | 29 | 135 | 96 | 154 | 230 | 344 |
| or percentage of total deaths— | | | | | | | |
| 6·9 | 1·2 | 2·7 | 12·5 | 9·0 | 14·3 | 21·4 | 32·0 |

Number died within 48 hours of admission—125, or 10·7 per cent.

It will be seen that 53 per cent. of the total deaths occurred in patients over 60 years of age, and it must always be remembered that, in addition to ordinary medical and surgical cases, we have still to receive patients who have had every conceivable form of treatment elsewhere, and are sent here hopelessly incurable.

This should never be forgotten in a hospital of this nature, as unfortunately, it hampers the whole of the machinery. Cases of chronic illness cannot be turned from the hospital, and in time the actual number increases year by year, so that certain wards associated with, but not in, the hospital are full of cases who cannot under any circumstances be discharged, and where vacancies are in no way possible to relieve the main hospital, unless the hand of Providence steps in.

Thus the death-rate figure cannot be compared with any ordinary general hospital, where, in certain establishments, a patient who is in any serious condition of illness is frequently removed immediately to another establishment such as this, where we have the last responsibility in the treatment of hopeless cases. The death-rate, therefore, conveys no exact expression of the utility of the hospital as a whole, but presents partly the conclusion of cases from other hospitals, whose statistics benefit at our expense.

SURGICAL WORK.

| | |
|---|---|
| Operations in the main theatres .. .. .. .. .. | 1,829 |
| Operations in the out-patient theatre .. .. .. .. | 1,589 |
| Total .. .. .. .. .. .. .. .. | 3,418 |

The above figures only represent surgical work which has been done under general anæsthetic in the theatres, but a number of operations have been carried out in the wards and newer departments, some with, and some without anæsthetic. The nature of these operations will be seen on page 158, which gives a detailed list of operations performed. Also reference to page 150, table of surgical cases treated in the wards, will be found to give valuable information.

This has always been an acute surgical hospital, where patients in large numbers can be received for immediate operation, and we have to have a very able and competent surgical staff, on duty whole-time, to deal with this side of the work of the hospital. The regular theatre lists are increasing, and the emergency operations bear the same ratio.

Certain days are set apart for gynæcological operations. There is no special gynæcological hospital anywhere near the North Middlesex Hospital, and, therefore, most of the work in this part of Middlesex is done here, in certain wards which are set apart for the reception of these cases, which are very varied and very numerous. The result of this branch of operative work has been very successful, and there is a largely increasing number of applications for treatment of diseases peculiar to women.

## Medical Work.

The medical work is divided in a number of wards for treatment of acute cases and pediatrics (diseases of children) and for the treatment of chronic ailments of every variety.

The medical work is particularly increased in the darker months of the year on account of pulmonary and cardiac conditions, and the sweeping effect of epidemics from time to time, when the health of the population is at a low ebb. At all seasons of the year, however, there are continually large numbers of medical cases under treatment, including very many who, in a chronic condition of illness, still require acute medical treatment, as well as those who require no active medical treatment, but merely bed-space. When this last number is removed, then the active medical work in the hospital will naturally be allowed to increase.

Attention should again be drawn to the number of mental deficient cases, who are put here in the first instance as a place of safety. These cases, in a good many instances, remain in this place of safety for far too long a period, as there is no special accommodation for them here, and they do not gain materially, except by being cared for, and they receive no special training, whereas the effect on other patients, who may be in the same ward, is very undesirable.

## Mental Patients.

| —— | Male. | Female. | Total. |
|---|---|---|---|
| Number remaining in on 31st March, 1930 .. .. .. .. | 10 | 19 | 29 |
| Number of admissions during the 9 months .. .. .. | 205 | 226 | 431 |
| Number of discharges during the 9 months .. .. .. | 102 | 107 | 209 |
| Number sent to mental hospitals .. .. .. .. .. | 101 | 123 | 224 |
| Number died .. .. .. .. .. .. .. .. | 7 | 9 | 16 |
| Number remaining in wards on 31st December .. .. .. | 10 | 19 | 29 |

These figures may be read with interest. The mental wards at this hospital are not so suitable as they might be, and there is a lack of airing space, but at the same time, it will be seen that a considerable portion of the cases sent in remain for treatment, and the patients are not sent further and certified to mental hospitals. There is not sufficient accommodation at present to deal with the voluntary boarders under the Mental Treatment Act, 1930, and after the usual routine of the conditions of the existing Lunacy Act (three-days order, or fourteen-days detention cases) a number of the patients are quite well enough to be discharged to the sick wards to recuperate, and ultimately to be discharged to their homes. In every report it is seen that the percentage of females removed to mental hospitals is greater than that of males, and the reason is, I think, associated with certain conditions of mental unbalance which occur in connection with various pelvic conditions, and their functions.

## Dispensary.

Number of prescriptions made up :—

| | |
|---|---|
| (*a*) In the main dispensary .. .. .. .. .. | 75,397 |
| (*b*) In the out-patient dispensary .. .. .. .. | 9,956 |
| Total.. .. .. .. .. | 85,353 |

## Maternity Department.

Total number of deliveries .. .. .. 919

Number of still-births.. .. .. 66 Number of live-births .. .. 853

*Complicated Cases.*

Cæsarean Section (5)—
(*a*) For contracted pelvis* .. .. 3
(*b*) For eclampsia* .. .. .. .. 1
(*c*) For placenta prævia* .. .. .. 1

* Mother and infant well.

*Complicated Cases*—(continued).

| | | | |
|---|---|---|---|
| Complicated breech | 6 | Rigid cervix | 7 |
| Impacted shoulders | 1 | Rigid perineum | 3 |
| Delayed labour, ending in forceps | 35 | Albuminuria | 39 |
| Obstructed labour— | | Cardiac | 3 |
| Ending in craniotomy | 2 | Eclampsia | 7 |
| Ending in episiotomy | 3 | Diabetes | 1 |
| Transverse lie | 6 | Pyelitis | 4 |
| Inductions, medical (87)— | | Cystitis | 1 |
| For contracted pelvis | 2 | Hydramnios | 12 |
| ,, disproportion | 49 | Hyperemesis | 2 |
| ,, pre-natal death | 4 | Post-Encephalitis | 1 |
| ,, post-maturity | 7 | Enlarged spleen | 1 |
| ,, albuminuria | 12 | Accidental hæmorrhage | 13 |
| ,, uterine inertia | 9 | Placenta prævia | 15 |
| ,, scoliosis | 1 | Footling | 1 |
| ,, hydramnios | 1 | Precipitate labour | 1 |
| ,, hyperemesis | 1 | Retained placenta | 11 |
| ,, eclampsia | 1 | Prolapsed cord | 5 |
| Inductions, surgical (31)— | | Post-partum hæmorrhage | 2 |
| For contracted pelvis | 2 | Tuberculosis | 1 |
| ,, disproportion | 16 | Asthma | 1 |
| ,, post-maturity | 2 | Chorea | 1 |
| ,, diabetes | 1 | Thrombosis | 1 |
| ,, albuminuria | 8 | Difficult breech | 4 |
| ,, uterine inertia | 1 | | |
| ,, vomiting | 1 | | |

*Maternal Deaths.*—3.

(1) Obstructed labour (contracted pelvis), emergency admission.
(2) Eclampsia (undelivered), emergency admission.
(3) Eclampsia (delivered, baby living), emergency admission.
(All these cases were admitted too late to permit of adequate treatment.)

In association with the maternity ward, there are held weekly two largely attended ante-natal clinics, taking pre-eclamptic, cardiac, disproportion cases, and many other abnormalities (the obvious difficulties of child-birth). Greater attention has been given recently to the lesser conditions which might cause sepsis, such as dental caries, &c. With this attention, there is much increasing benefit and comfort to the individual patient, and the clinics are very popular, as the patients attending them get information from the medical officers and pupil-midwives, and indirect information from the friends they meet on the days they come up. Early examinations are asked for by the patients now, as they realise the advantages. Many patients are saved difficulty by entering for treatment, say, by induction, and the number of patients treated by "accouchement forcé" will diminish. There is, however, still too little respect paid in this country to early ante-natal care.

Recently, Prof. S. A. Gammeltoft, of the University of Copenhagen, has stated that in Scandinavia, where the maternal mortality is much less than in other countries in Europe, and where, also ante-natal care is utilised to the utmost, he does not think much more benefit can accrue, and is of the opinion now, that further diminution in the mortality rate will occur with increased tuition of the students and midwives.

My experience in England is that we have still too many cases sent in here as emergency cases (note that the three maternal deaths were all admitted in emergency). These patients have not cared, or have not been notified, to attend the ante-natal clinic, where the condition causing death could readily have been diagnosed and their life saved. Again and again this matter should be thrashed out as much as possible in public, so that in this country there may be a free wish on the part of every expectant mother to get the earliest possible attention, long before the actual date of her illness.

### Out-Patient Department.

| | |
|---|---|
| No. of patients treated during the 9 months | 22,650 |
| No. of attendances | 39,479 |

The out-patient department is not competitive with the practitioners in the district, and it will be noted that these cases are of a special nature, and as far as possible, medical cases which can be treated by private, panel, or district medical officers are not received, except in the case where the treatment would be rather expensive for a poor person.

### Throat, Nose and Ear Department.

List of operations performed in this department :—

| | |
|---|---|
| Removal of tonsils and adenoids in children (guillotine) | 1,304 |
| Dissection of tonsils and adenoids | 66 |
| Sub-mucous resection of septum | 31 |
| Oesophagotomy | 1 |
| Mastoidectomy | 15 |
| Foreign body from nose | 1 |
| Nasal polypi | 6 |
| Aural polypi | 2 |
| Incision of drum | 1 |
| Antrostomy | 7 |
| Middle turbinates (removal) | 8 |
| Double ethmoidectomy | 1 |
| Examination under anæsthetic | 1 |

Some of these patients are in-patients, brought in for special throat, nose or ear operations, and may remain in the wards for a week or more. The majority, however, are out-patients, and in connection with the removal of tonsils and adenoids in children it will be noted that in the last few years we have come to about a stand-still in the increase of numbers. The reason is that since the inception of this treatment on a large scale, all the children of school age requiring treatment have been attended to, whereas now it refers mostly to new entrants subject to school medical examination. For a number of years we have had contracts existing with the Local Education Authorities in several districts for the purpose of dealing with this question of the health of school children.

### Dental Department.

| | |
|---|---|
| Number of patients treated | 724 |
| Anæsthetics given | 338 |
| Teeth extracted | 1,820 |

The cases in this department are restricted to patients in the wards, or poor patients who cannot afford dental treatment and who are unable to obtain aid from panel committees.

### Ophthalmic Department.

| | |
|---|---|
| Number of attendances during the 9 months | 2,100 |
| Refractions | 242 |
| Operations, major and minor | 42 |

These cases are mostly out-patients, but the surgeon oculist sees many special cases of eye disease in the wards.

### Massage, Electrical and Ultra-Violet Light Department.

Staff :—1 electro-therapeutic medical officer (part-time).
1 chief masseuse.
7 masseuses.

*Electro-therapeutic and massage—*

| | Number. | Treatments. |
|---|---|---|
| In-patients | 353 | 7,731 |
| Out-patients | 1,145 | 21,271 |
| | 1,498 | 29,002 |

*Actino-therapeutic—*

| | | |
|---|---|---|
| In-patients | 104 | 1,057 |
| Out-patients | 303 | 8,789 |
| | 407 | 9,846 |

Here again it is largely a question of out-patient treatment, but, additionally, the massage staff attends in the wards of the hospital, and does a great deal of in-door treatment respecting patients in bed. A new contract is in force with the Edmonton District Council for the treatment of children by radiant heat and massage in cases where the surgeon of their orthopædic department desires this to be carried out. Increasing use of medical diathermy has necessitated the use of three machines.

### Pathological Department.

Number of investigations made in this department :—

| | |
|---|---|
| Histological | 221 |
| Biochemical | 184 |
| Clinical pathology | 1,029 |
| Bacteriological | 1,246 |
| Post-mortem examinations (special) | 149 |

This department deals mostly with in-patients and its work has increased. The laboratory is very essential for the working of the hospital, and many clinical investigations have been carried out, which are of an expert character, requiring the services of a trained staff, and the results of these investigations are carefully co-ordinated with the clinical condition of the patient. New appliances including micro-photographic apparatus, have been added recently. The department is staffed by one part-time pathologist and one senior and two junior laboratory assistants.

## X-Ray Department.

Number of examinations made :—

| | Patients. | Attendances. |
|---|---|---|
| (*a*) For diagnosis .. .. .. .. .. .. | 4,435 | 5,007 |
| (*b*) For treatment (ringworm and skin cases) .. .. | 33 | 102 |

The X-ray department is in process of removal.

The present apparatus consists of a 10 K.V.A. transformer, Philips " B " type Metalix tubes and Coolidge tubes, and the treatment machine is capable of an output of 150,000 volts. In addition, for the Roentgen deep therapy, are used Philips " F " type tubes, to be worked at a voltage of 200,000 or more.

A new building is in course of construction, and this, when completed, will be equipped with suitable apparatus.

## Radium Department.

General—

| | |
|---|---|
| Total radium treatments .. .. .. .. .. .. .. | 98 |
| Anæsthetics .. .. .. .. .. .. .. .. | 81 |
| Radium insertions .. .. .. .. .. .. .. | 70 |
| By mould .. .. .. .. .. .. .. .. .. | 28 |
| Histological sections .. .. .. .. .. .. .. | 56 |
| Photographs .. .. .. .. .. .. .. .. | 127 |
| Electro-coagulations .. .. .. .. .. .. .. | 7 |
| Total attendances for review and examination .. .. .. | 924 |
| Total milligramme hours .. .. .. .. .. .. | 252, 307·18 |

*Detail of Radium Cases.*

| | No. of Cases. | Treatments. |
|---|---|---|
| *Carcinoma*— | | |
| Bladder .. .. .. .. .. .. | 1 | 1 |
| Cervix .. .. .. .. .. .. | 15 | 45 |
| Uterus .. .. .. .. .. .. | 3 | 8 |
| Vagina .. .. .. .. .. .. | 1 | 3 |
| Rectum-vagina .. .. .. .. .. | 1 | 1 |
| Breast .. .. .. .. .. .. | 3 | 3 |
| Tongue .. .. .. .. .. .. | 4 | 4 |
| Pharynx .. .. .. .. .. .. | 1 | 1 |
| *Epithelioma*— | | |
| Leg .. .. .. .. .. .. | 1 | 3 |
| Face .. .. .. .. .. .. | 1 | 2 |
| Lip .. .. .. .. .. .. | 2 | 3 |
| Hand .. .. .. .. .. .. | 1 | 1 |
| *Rodent Ulcer*— | | |
| Ear .. .. .. .. .. .. | 1 | 1 |
| Eye .. .. .. .. .. .. | 2 | 2 |
| Forehead .. .. .. .. .. .. | 1 | 1 |
| Neck .. .. .. .. .. .. | 1 | 1 |
| Nose .. .. .. .. .. .. | 2 | 2 |
| Face .. .. .. .. .. .. | 3 | 3 |
| *Other Conditions*— | | |
| Menorrhagia .. .. .. .. .. | 1 | 1 |
| Lupus .. .. .. .. .. .. | 1 | 1 |
| Nævi— | | |
| Chin and Ear .. .. .. .. | 1 | 3 |
| Back .. .. .. .. .. | 1 | 2 |
| Foot .... .. .. .. .. | 1 | 1 |
| Nose .. .. .. .. .. | 1 | 3 |
| Cheek .. .. .. .. .. | 1 | 1 |
| Arm and head .. .. .. .. | 1 | 1 |
| | 52 | 98 |

*Operations—*

| | |
|---|---|
| Perineal excision of rectum and colostomy | 1 |
| Removal of tumour, left breast | 1 |
| Colostomy for recto-vaginal fistula | 1 |

*Number of Roentgen deep therapy cases treated during the period of the report.*

| | | | |
|---|---|---|---|
| Carcinoma cervix | 13 | Epithelioma abdominal wall | 1 |
| ,, left ovary (mass removed) | 1 | Carcinoma tongue | 4 |
| ,, right breast | 12 | ,, larynx | 2 |
| ,, left breast | 13 | ,, floor of mouth | 1 |
| ,, both breasts | 1 | Epipharyngeal carcinoma | 1 |
| ,, penis | 1 | Glands of neck | 5 |
| ,, scrotum | 1 | Sarcoma of thigh (right) | 1 |
| ,, left testis and tumour | 1 | Lymphatic glands | 1 |
| ,, stomach | 2 | Carcinoma little finger | 1 |
| ,, splenic flexure | 1 | | — |
| ,, sigmoid | 1 | Total number of patients | 65 |
| ,, cæcum | 1 | Total number of treatments | 440 |
| | | Total number of international Roentgen units | 92,866 |

During the period of nine minths under review, this department has become very busy, and its work and patients tend to increase day by day, largely in view of the fact that cases from all the other hospitals under the Middlesex County Council are referring their patients here, specially, for information and treatment. Large numbers now attend the clinics when possible, or are seen at the bedside.

The results of treatment have been satisfactory, and as in this department radium work is carried out in conjunction with deep Roentgen therapy, electro-coagulation (surgical diathermy) and other methods, the results have been very successful, and are subject to special report.

In all cases of external cancers treated, there is so far a recovery rate of 100 per cent. These of course can be demonstrated visibly by photographic records. Other cases of carcinoma of the internal parts can be demonstrated only by figures, and later on by results shown as the years pass by, but in every suitable case for radium or deep-therapy treatment very good results have been obtained. The word " suitable " is used purposely, as there are very many unsuitable cases referred to the department which are not yet within the bounds of possibility of successful treatment, but which may yet be palliated.

In estimating the work of the X-ray and radium departments, figures of numbers of patients &c., do not account entirely for the work done, as a great deal of very accurate recording has to be done, especially by photography, and cinema photography, colour-plate work, &c., and this takes a great deal of time and the results are slow but very useful, giving, wherever possible, a definite record, and at times a visual one, of the exact progress of the patient.

## Training School for Nurses.

The latest reports from the training school are very encouraging ; indeed, at the last examinations there were four lists of 100 per cent. successes :—

(1) The preliminary examination of the General Nursing Council.

(2) The final examination of the General Nursing Council.

(3) The hospital final examination.

(4) The examination of the Central Midwives Board.

The school gives general training for the admission to the State Register of the General Nursing Council, whilst special courses are conducted for qualified nurses to train for the Central Midwives Board examination.

In the department for maternity training, lectures are given by the medical superintendent, deputy medical superintendent, the obstetric surgeon, in addition to those given by the superintendent of the maternity ward and the sisters of the department. Additional demonstrations on special subjects are given by means of special operations, epidiascope, cinema films, biological specimens, &c., and every other way possible to stimulate the imagination of the pupil.

## Post-Graduate Medical Training.

A number of doctors from time to time attend the practice of the hospital, and, although no regular arrangement has been made, they are allowed to visit any department, and are made welcome.

Special demonstrations for medical societies are arranged as occasion permits, and the usual post-graduate work has been undertaken in connection with the Fellowship of the Royal Society of Medicine, through the North-East London Clinical Society.

TABLE OF MEDICAL CASES TREATED DURING PERIOD 1ST APRIL, 1930, TO 31ST DECEMBER, 1930 (NINE NONTHS ONLY).

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Infective Diseases—* | | | | | |
| Actinomycosis | 1 | 1 | — | — | — |
| Diphtheria | 3 | 2 | 1 | — | — |
| Enteric | 9 | 4 | 5 | — | — |
| Erysipelas | 3 | 2 | — | — | 1 |
| Influenza | 11 | 9 | 2 | — | — |
| Influenzal pneumonia | 5 | 3 | 1 | 1 | — |
| Lobar pneumonia | 80 | 40 | 14 | 20 | 6 |
| Malaria | 1 | 1 | — | — | — |
| Miliary tuberculosis | 1 | — | — | — | 1 |
| Morbilli | 5 | 3 | 2 | — | — |
| Mumps | 2 | 2 | — | — | — |
| Pertussis | 5 | — | 5 | — | — |
| Pyæmia | 1 | — | — | — | 1 |
| Pyrexia of unknown origin | 1 | 1 | — | — | — |
| Rheumatism, acute | 73 | 35 | 38 | — | — |
| Rheumatism, chronic | 10 | 4 | 6 | — | — |
| Scarlet fever | 3 | 1 | 2 | — | — |
| Septicæmia | 6 | — | — | — | 6 |
| Tetanus | 3 | 3 | — | — | — |
| Varicella | 1 | — | 1 | — | — |
| *Disorders of Metabolism and Endocrine System—* | | | | | |
| Diabetes mellitus | 15 | 5 | 6 | 1 | 3 |
| Exophthalmic goitre | 8 | — | 5 | 1 | 2 |
| Gout | 1 | — | 1 | — | — |
| Malnutrition | 3 | — | — | 2 | 1 |
| Marasmus | 10 | 3 | 1 | 5 | 1 |
| Myxœdema | 1 | — | 1 | — | — |
| Prematurity | 7 | — | — | 6 | 1 |
| *Nervous System—* | | | | | |
| Functional disorders— | | | | | |
| Amnesia | 6 | 4 | 2 | — | — |
| Asthenia | 17 | 2 | 14 | 1 | — |
| Cephalalgia | 2 | 1 | 1 | — | — |
| Chorea | 35 | 14 | 20 | — | 1 |
| Convulsions, infantile | 3 | 2 | 1 | — | — |
| Epilepsy | 42 | 29 | 13 | — | — |
| Fits | 7 | 3 | 4 | — | — |
| Heat stroke | 4 | 3 | 1 | — | — |
| Hyperæsthesia | 1 | 1 | — | — | — |
| Hysteria | 7 | 2 | 5 | — | — |
| Imbecility | 1 | — | 1 | — | — |
| Jacksonian epilepsy | 7 | 4 | 3 | — | — |
| Mental defects | 19 | 8 | 11 | — | — |
| Neurasthenia | 40 | 20 | 20 | — | — |
| Neurosis | 64 | 9 | 55 | — | — |
| Psycho-neurosis | 1 | — | 1 | — | — |
| Psychosis— | | | | | |
| Delusions of persecution | 10 | 2 | 8 | — | — |
| Dementia præcox | 3 | 2 | 1 | — | — |
| Mania, acute | 4 | — | 4 | — | — |
| Melancholia | 15 | 3 | 12 | — | — |
| Senile dementia | 7 | — | 7 | — | — |
| Unclassified | 272 | 122 | 150 | — | — |

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Nervous System*—contd. | | | | | |
| Senility | 122 | 22 | 34 | 8 | 58 |
| Vertigo | 2 | 1 | 1 | — | — |
| Meninges— | | | | | |
| Meningitis— | | | | | |
| Meningococcal | 5 | 2 | — | — | 3 |
| Streptococcal | 1 | — | — | 1 | — |
| Tuberculous | 12 | 1 | — | 2 | 9 |
| Cerebral Blood Vessels— | | | | | |
| Embolus | 2 | — | 2 | — | — |
| Hæmorrhage | 63 | 6 | 8 | 18 | 31 |
| Thrombosis | 57 | 8 | 14 | 21 | 14 |
| Diffuse Affections of Cerebro-Spinal System— | | | | | |
| Disseminated sclerosis | 6 | 2 | 3 | — | 1 |
| Paralysis agitans | 8 | 1 | 6 | — | 1 |
| Paresis | 5 | 1 | 3 | 1 | — |
| Tabes dorsalis | 7 | 6 | — | — | 1 |
| Tabo-paresis | 3 | 2 | — | 1 | — |
| Brain— | | | | | |
| Abscess | 4 | — | — | 4 | — |
| Tumour | 2 | — | — | 1 | 1 |
| Diplegia | 1 | 1 | — | — | — |
| Encephalitis lethargica | 12 | 4 | 3 | 1 | 4 |
| Hemiplegia | 45 | 12 | 5 | 17 | 11 |
| Paraplegia | 7 | 2 | 5 | — | — |
| Spinal Cord— | | | | | |
| Myelitis | 2 | — | — | 1 | 1 |
| Poliomyelitis, acute | 3 | 1 | 2 | — | — |
| Caries | 2 | 2 | — | — | — |
| Progressive muscular atrophy | 1 | — | — | 1 | — |
| Peripheral— | | | | | |
| Neuralgia | 3 | 1 | 2 | — | — |
| Neuritis | 8 | 5 | 3 | — | — |
| Sciatica | 5 | 3 | 2 | — | — |
| *Blood, Lymph and Reticulo-Endothelial System*— | | | | | |
| Adenitis | 16 | 9 | 7 | — | — |
| Adenitis, tuberculous | 2 | 2 | — | — | — |
| Anæmia— | | | | | |
| Pernicious | 10 | — | 4 | 1 | 5 |
| Secondary | 9 | 3 | 5 | 1 | — |
| Leukæmia— | | | | | |
| Lymphatic | 1 | — | 1 | — | — |
| Myelocytic | 1 | — | 1 | — | — |
| Purpura— | | | | | |
| Hæmorrhagica | 2 | — | — | 1 | 1 |
| Henoch's | 1 | — | 1 | — | — |
| Hæmophilia | 1 | 1 | — | — | — |
| Lymphangitis | 6 | 3 | 3 | — | — |
| Polycythæmia rubra | 1 | — | 1 | — | — |
| *Circulatory System*— | | | | | |
| Disorders of Cardiac Function— | | | | | |
| Angina pectoris | 3 | — | 2 | — | 1 |
| Auricular fibrillation | 14 | 4 | 7 | 2 | 1 |
| Cardiasthenia | 2 | — | 2 | — | — |
| Cardiac failure | 66 | 2 | 6 | 34 | 24 |
| Cardio-renal disease | 1 | — | — | — | 1 |
| Cardio-vascular degeneration | 17 | — | 1 | 8 | 8 |
| Syncope | 6 | 5 | 1 | — | — |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Circulatory System*—contd. | | | | | |
| Heart— | | | | | |
| Carditis | 14 | 1 | 12 | — | 1 |
| Myocardium— | | | | | |
| Degeneration | 57 | 3 | 8 | 25 | 21 |
| Myocarditis | 105 | 4 | 29 | 39 | 33 |
| Pericardium— | | | | | |
| Pericarditis | 3 | 1 | 1 | 1 | — |
| Endocardium— | | | | | |
| Endocarditis— | | | | | |
| Acute infective | 21 | 5 | 13 | — | 3 |
| Chronic infective | 8 | 2 | 2 | — | 4 |
| Malignant | 1 | — | — | 1 | — |
| Heart Valves— | | | | | |
| Aortic regurgitation | 3 | 1 | 2 | — | — |
| Mitral regurgitation | 4 | — | 2 | 2 | — |
| Mitral regurgitation with stenosis | 1 | — | — | — | 1 |
| Mitral stenosis | 16 | 6 | 6 | 3 | 1 |
| Chronic valvular diseas | 22 | 1 | 9 | 1 | 11 |
| Great Vessels— | | | | | |
| Aneurysm— | | | | | |
| Aorta, thoracic | 2 | — | — | 1 | 1 |
| Aortitis— | | | | | |
| Syphilitic | 1 | 1 | — | — | — |
| Pulmonary embolism | 1 | — | — | — | 1 |
| Peripheral Vessels— | | | | | |
| Arterio-sclerosis | 24 | 8 | 11 | 3 | 2 |
| Atheroma | 1 | — | — | 1 | — |
| Arterio-vascular degeneration | 7 | — | — | 7 | — |
| Hyperpiesis | 13 | 4 | 9 | — | — |
| Phlebitis | 27 | 5 | 22 | — | — |
| Senile gangrene | 3 | — | — | 1 | 2 |
| Thrombo-phlebitis | 2 | 2 | — | — | — |
| Varicose veins | 2 | 1 | 1 | — | — |
| *Respiratory System*— | | | | | |
| Asthma | 18 | 6 | 9 | 1 | 2 |
| Cough | 1 | — | 1 | — | — |
| Dyspnœa | 2 | 1 | 1 | — | — |
| Nose and Throat— | | | | | |
| Coryza | 1 | 1 | — | — | — |
| Epistaxis | 7 | 4 | 3 | — | — |
| Pharyngitis | 5 | 1 | 3 | 1 | — |
| Sinusitis | 1 | 1 | — | — | — |
| Larynx— | | | | | |
| Syphilis | 1 | — | 1 | — | — |
| Tuberculosis | 1 | — | — | 1 | — |
| Bronchi— | | | | | |
| Bronchiectasis | 2 | 1 | 1 | — | — |
| Bronchitis, acute | 57 | 29 | 22 | 5 | 1 |
| Bronchitis, chronic | 109 | 52 | 27 | 21 | 9 |
| Lung— | | | | | |
| Abscess | 1 | 1 | — | — | — |
| Broncho-pneumonia | 106 | 35 | 36 | 22 | 13 |
| Broncho-pneumonia, pneumococcal | 1 | — | — | 1 | — |
| Pleuro-pneumonia | 20 | 14 | 5 | 1 | — |
| Emphysema | 5 | 2 | 3 | — | — |
| Fibrosis | 8 | 5 | 3 | — | — |
| Hæmoptysis | 10 | 4 | 6 | — | — |
| Œdema | 1 | — | — | 1 | — |
| Tuberculosis | 118 | 33 | 39 | 25 | 21 |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Respiratory System*—contd. | | | | | |
| Pleura— | | | | | |
| Empyema | 5 | 5 | — | — | — |
| Hydrothorax | 1 | — | — | — | 1 |
| Pleurisy | 23 | 17 | 6 | — | — |
| Pleurisy with effusion | 10 | 8 | 2 | — | — |
| Pleurisy, diaphragmatic | 2 | — | 2 | — | — |
| Pleurisy, tubercular | 3 | 3 | — | — | — |
| Pneumothorax | 1 | 1 | — | — | — |
| *Digestive System*— | | | | | |
| Abdominal neurosis | 2 | — | 2 | — | — |
| Foreign body alimentary tract | 5 | 5 | — | — | — |
| Vomiting | 2 | — | 2 | — | — |
| Vomiting of pregnancy | 6 | — | 6 | — | — |
| Teething | 1 | — | 1 | — | — |
| Alveoli— | | | | | |
| Abscess | 4 | 3 | 1 | — | — |
| Hæmorrhage | 7 | 4 | 3 | — | — |
| Pyorrhœa | 3 | 2 | 1 | — | — |
| Mouth— | | | | | |
| Burns | 1 | — | 1 | — | — |
| Stomatitis | 4 | 1 | 3 | — | — |
| Tonsils— | | | | | |
| Peri-tonsillar abscess | 6 | 3 | 3 | — | — |
| Tonsillitis | 12 | 4 | 8 | — | — |
| Stomach— | | | | | |
| Dyspepsia | 4 | 2 | 2 | — | — |
| Gastritis | 16 | 7 | 9 | — | — |
| Gastro-enteritis | 39 | 10 | 13 | 10 | 6 |
| Gastralgia | 2 | — | 2 | — | — |
| Hæmatemesis | 8 | 2 | 6 | — | — |
| Hourglass | 1 | 1 | — | — | — |
| Ulcer | 54 | 36 | 12 | 3 | 3 |
| Lead Colic | 2 | 2 | — | — | — |
| Pylorus— | | | | | |
| Stenosis | 3 | 2 | 1 | — | — |
| Ulcer | 14 | 5 | 9 | — | — |
| Intestines— | | | | | |
| Appendicitis | 27 | 12 | 15 | — | — |
| Colic | 2 | 1 | 1 | — | — |
| Colitis— | | | | | |
| Mucous | 6 | — | 6 | — | — |
| Ulcerative | 3 | 1 | 1 | 1 | — |
| Constipation | 59 | 18 | 41 | — | — |
| Diarrhœa | 6 | 3 | 3 | — | — |
| Diarrhœa and vomiting | 10 | 7 | 3 | — | — |
| Diverticulitis | 4 | 2 | 2 | — | — |
| Duodenum— | | | | | |
| Ulcer | 20 | 17 | 2 | 1 | — |
| Enteritis | 9 | 5 | 2 | 1 | 1 |
| Jejunum— | | | | | |
| Ulcer | 1 | 1 | — | — | — |
| Malæna | 3 | 1 | 2 | — | — |
| Obstruction | 2 | — | 1 | 1 | — |
| Oxyuris vermicularis | 2 | — | 2 | — | — |
| Visceroptosis | 3 | 1 | 2 | — | — |
| Rectum and Anus— | | | | | |
| Fissure-in-ano | 1 | — | 1 | — | — |
| Prolapse | 4 | 4 | — | — | — |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Digestive System*— contd. | | | | | |
| Pancreas— | | | | | |
| Pancreatitis | 1 | — | 1 | — | — |
| Liver— | | | | | |
| Catarrhal icterus | 2 | 2 | — | — | — |
| Cirrhosis | 10 | 4 | 1 | 4 | 1 |
| Hypertrophy | 1 | 1 | — | — | — |
| Yellow atrophy | 1 | — | — | — | 1 |
| Gall-Bladder— | | | | | |
| Cholangitis | 1 | — | 1 | — | — |
| Cholecystitis | 25 | 9 | 14 | 1 | 1 |
| Peritoneum— | | | | | |
| Ascites | 3 | 2 | 1 | — | — |
| Peritonitis | 1 | — | 1 | — | — |
| Tuberculosis | 1 | 1 | — | — | — |
| *Urinary System*—. | | | | | |
| Albuminuria | 3 | — | 3 | — | — |
| Albuminuria of pregnancy | 3 | — | 3 | — | — |
| Dysuria | 1 | — | 1 | — | — |
| Hæmaturia | 1 | — | 1 | — | — |
| Uræmia | 12 | — | — | 8 | 4 |
| Incontinence | 1 | 1 | — | — | — |
| Kidney— | | | | | |
| Colic | 1 | — | 1 | — | — |
| Nephritis— | | | | | |
| Acute | 16 | 8 | 8 | — | — |
| Chronic | 22 | 6 | 8 | 2 | 6 |
| Interstitial | 3 | — | — | 2 | 1 |
| Parenchymatous | 1 | — | — | 1 | — |
| Nephroptosis | 1 | — | 1 | — | — |
| Pyelitis | 16 | 2 | 14 | — | — |
| Pyelitis of pregnancy | 6 | — | 6 | — | — |
| Bladder— | | | | | |
| Cystitis | 10 | — | 9 | — | 1 |
| Penis— | | | | | |
| Balanitis | 1 | 1 | — | — | — |
| Urethra— | | | | | |
| Urethritis | 1 | 1 | — | — | — |
| Prostate— | | | | | |
| Senile enlargement | 11 | 8 | — | 3 | — |
| Prostatitis | 1 | 1 | — | — | — |
| Testes— | | | | | |
| Epididymitis | 1 | 1 | — | — | — |
| Orchitis | 2 | 2 | — | — | — |
| Undescended | 1 | 1 | — | — | — |
| *Locomotor System*— | | | | | |
| Bones and Joints— | | | | | |
| Charcot's joints | 3 | 2 | 1 | — | — |
| Arthritis— | | | | | |
| Acute | 2 | — | 2 | — | — |
| Chronic | 7 | — | 7 | — | — |
| Gonococcal | 1 | 1 | — | — | — |
| Osteoarthritis | 26 | 7 | 18 | — | 1 |
| Polyarthritis | 4 | — | 4 | — | — |
| Rheumatoid | 40 | 9 | 30 | — | 1 |
| Spine— | | | | | |
| Lumbar and psoas abscess | 5 | 3 | 2 | — | — |
| Scoliosis | 2 | — | 2 | — | — |
| Spondylitis | 2 | 2 | — | — | — |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Locomotor System*—contd. | | | | | |
| Tendons, Fasciæ and Muscles— | | | | | |
| Lumbago | 6 | 2 | 4 | — | — |
| Myositis | 4 | 2 | 2 | — | — |
| Pleurodynia | 2 | — | 2 | — | — |
| *Cutaneous System*— | | | | | |
| Cicatrix | 1 | 1 | — | — | — |
| Dermatitis | 24 | 13 | 10 | — | 1 |
| Eczema | 14 | 12 | 2 | — | — |
| Erythema nodosum | 3 | — | 3 | — | — |
| Impetigo | 36 | 25 | 11 | — | — |
| Insect bite | 2 | 2 | — | — | — |
| Lupus | 1 | 1 | — | — | — |
| Scabies | 5 | 3 | 2 | — | — |
| Syphilis | 1 | — | 1 | — | — |
| Ulceration, chronic | 19 | 11 | 8 | — | — |
| Wasp sting | 1 | 1 | — | — | — |
| *Poisons*— | | | | | |
| Alcoholism | 10 | 7 | 3 | — | — |
| Carbolic acid | 1 | — | 1 | — | — |
| Carbon monoxide | 1 | 1 | — | — | — |
| Coal gas | 9 | 4 | 3 | — | 2 |
| Crude paraffin | 1 | 1 | — | — | — |
| Hydrochloric acid | 2 | 2 | — | — | — |
| Hyoscin hydrobrom | 1 | 1 | — | — | — |
| Lead | 1 | 1 | — | — | — |
| Lysol | 2 | 1 | 1 | — | — |
| Methylated spirits | 1 | 1 | — | — | — |
| Phosphorus | 1 | — | 1 | — | — |
| Mercury | 1 | 1 | — | — | — |
| Ptomaine | 9 | 4 | 5 | — | — |
| Quinine | 1 | — | 1 | — | — |
| Zinc sulphate | 1 | — | 1 | — | — |
| *Diseases of the Ear*— | | | | | |
| Mastoiditis | 10 | 3 | 7 | — | — |
| Otitis media | 35 | 15 | 20 | — | — |
| *Diseases of the Eye*— | | | | | |
| Cyclitis | 1 | 1 | — | — | — |
| Corneal ulcer | 5 | 4 | 1 | — | — |
| Conjunctivitis | 2 | 2 | — | — | — |
| Heminopia | 1 | 1 | — | — | — |
| Laceration cornea | 1 | — | 1 | — | — |
| Onyx | 1 | — | 1 | — | — |
| Retinitis | 1 | — | 1 | — | — |
| *Miscellaneous*— | | | | | |
| Breast-fed infants | 21 | 11 | 10 | — | — |
| Exhaustion | 1 | 1 | — | — | — |
| Neglect | 1 | — | 1 | — | — |
| Nil abnormal detected | 9 | 7 | 2 | — | — |
| Unsubstantiated diagnosis | 27 | 12 | 15 | — | — |

TABLE OF SURGICAL CASES TREATED DURING PERIOD 1ST APRIL, 1930, TO 31ST DECEMBER, 1930 (NINE MONTHS ONLY).

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Malignant Growths**— | | | | | |
| Carcinoma— | | | | | |
| Abdominal wall | 5 | 1 | 1 | 2 | 1 |
| Bladder | 14 | 8 | — | 5 | 1 |
| Breast | 31 | — | 21 | 1 | 9 |
| Cæcum | 2 | — | — | 2 | — |
| Cervix uteri | 24 | — | 14 | — | 8 |
| Cheek | 1 | — | — | 1 | — |
| Colon | 19 | 4 | 2 | 9 | 4 |
| Ethmoid | 1 | — | — | — | 1 |
| Fauces | 2 | 2 | — | — | — |
| Gall bladder | 1 | — | 1 | — | — |
| Hepatic flexure | 1 | 1 | — | — | — |
| Intestines | 1 | — | 1 | — | — |
| Larynx | 3 | — | — | 2 | 1 |
| Liver | 10 | — | 4 | 3 | 3 |
| Lung | 2 | 1 | — | — | 1 |
| Mouth | 10 | 4 | 1 | 5 | — |
| Œsophagus | 6 | 1 | — | 2 | 3 |
| Ovaries | 5 | — | 2 | — | 3 |
| Pancreas | 3 | 1 | 1 | — | 1 |
| Penis | 3 | 1 | — | 2 | — |
| Pharynx | 2 | 2 | — | — | — |
| Prostate | 8 | 6 | — | 2 | — |
| Rectum | 21 | 2 | 5 | 10 | 4 |
| Scrotum | 2 | 1 | — | 1 | — |
| Sigmoid colon | 11 | 1 | 6 | 2 | 2 |
| Splenic flexure | 9 | 3 | 4 | — | 2 |
| Spine | 1 | — | 1 | — | — |
| Stomach | 46 | 10 | 6 | 19 | 11 |
| Thyroid | 1 | — | — | — | 1 |
| Tongue | 12 | 6 | 1 | 4 | 1 |
| Tonsils | 2 | — | — | 2 | — |
| Vagina | 1 | — | — | — | 1 |
| Uterus, body | 15 | — | 5 | — | 10 |
| General carcinomatosis | 3 | — | 2 | 1 | — |
| Epithelioma— | | | | | |
| Lip | 4 | 3 | — | 1 | — |
| Sarcoma— | | | | | |
| Thigh | 1 | — | — | 1 | — |
| Myeloid sarcoma | 1 | — | 1 | — | — |
| Rodent Ulcer— | | | | | |
| Ear | 2 | 2 | — | — | — |
| Face | 5 | 3 | 2 | — | — |
| Eye | 4 | 2 | 2 | — | — |
| Neck (and senility) | 3 | — | 2 | — | 1 |
| Nose | 2 | 2 | — | — | — |
| *General Infections*— | | | | | |
| Pyæmia | 1 | — | — | — | 1 |
| Septicæmia | 3 | — | — | 2 | 1 |
| *Integuments*— | | | | | |
| Skin— | | | | | |
| Burns and scalds | 30 | 15 | 14 | 1 | — |
| Cicatrix | 1 | 1 | — | — | — |
| Dog-bite | 2 | 2 | — | — | — |
| Foreign body | 3 | 3 | — | — | — |
| Furunculosis | 5 | 1 | 3 | — | 1 |

* Many of these were cases sent in "in extremis" for palliative treatment only.

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Integuments*—contd. | | | | | |
| Injuries— | | | | | |
| Abrasions, contusions and cuts .. | 228 | 154 | 71 | 1 | 2 |
| Multiple injuries .. .. .. | 1 | — | — | 1 | — |
| Cut throat .. .. .. .. | 2 | 2 | — | — | — |
| Lupus .. .. .. .. .. | 1 | 1 | — | — | — |
| Nails— | | | | | |
| Paronychia, suppurative .. .. | 4 | 3 | 1 | — | — |
| New growths— | | | | | |
| Adenoma, sudoriferous gland .. | 1 | 1 | — | — | — |
| Fibro-adenoma .. .. .. | 2 | — | 2 | — | — |
| Lipoma .. .. .. .. | 2 | 1 | 1 | — | — |
| Papilloma .. .. .. .. | 3 | 1 | 2 | — | — |
| Thyroglossal cyst .. .. .. | 1 | — | 1 | — | — |
| Mammary glands— | | | | | |
| Acute mastitis .. .. .. .. | 16 | — | 16 | — | — |
| Chronic mastitis .. .. .. | 1 | — | 1 | — | — |
| Sebaceous cyst .. .. .. .. | 1 | — | 1 | — | — |
| *Connective Tissue*— | | | | | |
| Cellular tissue— | | | | | |
| Carbuncle .. .. .. .. | 12 | 8 | 2 | 2 | — |
| Cellulitis .. .. .. .. | 107 | 64 | 39 | 3 | 1 |
| Hæmatoma .. .. .. .. | 18 | 10 | 8 | — | — |
| New growth— | | | | | |
| Neuroma .. .. .. .. | 2 | 1 | 1 | — | — |
| Bursæ— | | | | | |
| Bursitis, acute .. .. .. .. | 21 | 9 | 12 | — | — |
| Bursitis, prepatella .. .. .. | 4 | 2 | 2 | — | — |
| Fasciæ— | | | | | |
| Ganglion .. .. .. .. | 2 | — | 2 | — | — |
| Muscles and tendons— | | | | | |
| Cut tendon .. .. .. .. | 8 | 5 | 3 | — | — |
| Teno-synovitis, suppurative .. | 2 | 1 | 1 | — | — |
| *Bones and Joints*— | | | | | |
| Acquired deformities— | | | | | |
| Deformity of toes .. .. .. | 1 | — | 1 | — | — |
| Deformity of finger .. .. .. | 1 | 1 | — | — | — |
| Deformity of tibiæ .. .. .. | 1 | 1 | — | — | — |
| Hallux valgus .. .. .. | 2 | 1 | 1 | — | — |
| Talipes equinus .. .. .. | 1 | 1 | — | — | — |
| Talipes decubitus .. .. .. | 1 | — | 1 | — | — |
| Bones— | | | | | |
| Infections— | | | | | |
| Necrosis— | | | | | |
| Acromion .. .. .. .. | 1 | — | 1 | — | — |
| Mandible .. .. .. .. | 1 | 1 | — | — | — |
| Phalanx .. .. .. .. | 2 | 2 | — | — | — |
| Tibia .. .. .. .. | 1 | 1 | — | — | — |
| Osteomyelitis— | | | | | |
| Acute .. .. .. .. | 27 | 20 | 5 | 1 | 1 |
| Chronic .. .. .. .. | 20 | 13 | 6 | 1 | — |
| Syphilitic .. .. .. .. | 1 | 1 | — | — | — |
| Tuberculous .. .. .. | 2 | — | 2 | — | — |
| Tuberculous dactylitis .. .. | 1 | — | 1 | — | — |
| Tuberculosis— | | | | | |
| Spine .. .. .. .. | 4 | 3 | 1 | — | — |
| Sternum .. .. .. .. | 1 | — | 1 | — | — |
| Osteitis .. .. .. .. | 2 | — | 1 | — | 1 |
| Epiphysitis .. .. .. .. | 1 | 1 | — | — | — |
| Periostitis .. .. .. .. | 6 | 2 | 4 | — | — |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Bones and Joints*—contd. | | | | | |
| New growth— | | | | | |
| Exostosis | 2 | 1 | 1 | — | — |
| Injuries— | | | | | |
| Fractures— | | | | | |
| Clavicle | 20 | 13 | 7 | — | — |
| Coccyx | 1 | 1 | — | — | — |
| Femur | 53 | 24 | 17 | 4 | 8 |
| Fibula | 15 | 11 | 4 | — | — |
| Humerus | 29 | 20 | 8 | 1 | — |
| Malleolus | 2 | 1 | 1 | — | — |
| Mandible | 3 | 2 | 1 | — | — |
| Metatarsus | 7 | 6 | 1 | — | — |
| Olecranon | 3 | 3 | — | — | — |
| Os calcis | 2 | 2 | — | — | — |
| Phalanges | 3 | 3 | — | — | — |
| Patella | 9 | 4 | 5 | — | — |
| Pelvis | 8 | 7 | 1 | — | — |
| Radius | 6 | 4 | 2 | — | — |
| Colles | 13 | 4 | 9 | — | — |
| Radius and ulna | 15 | 11 | 4 | — | — |
| Ribs | 22 | 14 | 7 | 1 | — |
| Scapula | 1 | — | 1 | — | — |
| Skull— | | | | | |
| Base | 26 | 8 | 1 | 10 | 7 |
| Vault | 24 | 19 | 4 | 1 | — |
| Tibia | 23 | 19 | 3 | — | 1 |
| Tibia and fibula | 53 | 34 | 14 | 3 | 2 |
| Pott's | 9 | 3 | 6 | — | — |
| Ulna | 1 | 1 | — | — | — |
| Vertebræ | 4 | 2 | 2 | — | — |
| Multiple | 7 | 5 | 2 | — | — |
| Mal-united | 7 | 6 | 1 | — | — |
| Old fracture | 1 | 1 | — | — | — |
| Forceps injuries | 1 | — | — | 1 | — |
| Plaster removal | 1 | 1 | — | — | — |
| Joints— | | | | | |
| Infections— | | | | | |
| Arthritis, suppurative | 5 | 4 | 1 | — | — |
| Tuberculosis | 7 | 3 | 3 | — | 1 |
| Injuries— | | | | | |
| Dislocations— | | | | | |
| Astragalus | 1 | — | 1 | — | — |
| Elbow | 4 | 3 | 1 | — | — |
| Finger | 1 | — | 1 | — | — |
| Shoulder | 7 | 2 | 5 | — | — |
| Thumb | 2 | 2 | — | — | — |
| Toe | 1 | 1 | — | — | — |
| Wrist | 1 | 1 | — | — | — |
| Sprains | 3 | 2 | 1 | — | — |
| Strains | 9 | 5 | 4 | — | — |
| Internal derangements— | | | | | |
| Torn semi-lunar cartilage | 9 | 9 | — | — | — |
| Unclassified | 1 | 1 | — | — | — |
| Synovitis knee | 10 | 6 | 4 | — | — |
| *Lymphatic System*— | | | | | |
| Lymphatic channels— | | | | | |
| Lymphangitis | 5 | 4 | 1 | — | — |
| Lymphatic glands— | | | | | |
| Adenitis, pyogenic | 40 | 28 | 12 | — | — |
| Hodgkin's disease | 3 | 1 | 1 | 1 | — |
| Tuberculosis | 5 | 2 | 3 | — | — |

| —— | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Vascular System*— | | | | | |
| Arterial System— | | | | | |
| Aneurysm, traumatic | 1 | 1 | — | — | — |
| Embolism | 1 | 1 | — | — | — |
| Gangrene— | | | | | |
| Diabetic | 9 | 4 | 4 | 1 | — |
| Senile | 5 | 1 | 1 | 1 | 2 |
| Phagedæmatous | 3 | 2 | 1 | — | — |
| Venous System— | | | | | |
| Varicose veins | 1 | 1 | — | — | — |
| *Central Nervous System*— | | | | | |
| Concussion | 33 | 20 | 13 | — | — |
| Myasthenia, rachitic | 1 | — | 1 | — | — |
| Torticollis, congenital | 1 | — | 1 | — | — |
| *Peripheral Nervous System*— | | | | | |
| Sensory Organs— | | | | | |
| Ear— | | | | | |
| Acute otitis media | 17 | 7 | 10 | — | — |
| Acute mastoiditis | 38 | 15 | 21 | 2 | — |
| Polypus | 1 | 1 | — | — | — |
| Eye— | | | | | |
| Cornea— | | | | | |
| Foreign body | 3 | 3 | — | — | — |
| Keratitis | 5 | 1 | 4 | — | — |
| Lens— | | | | | |
| Cataract | 4 | 1 | 3 | — | — |
| Iris— | | | | | |
| Mydriasis | 1 | 1 | — | — | — |
| Ciliary Body— | | | | | |
| Irido-cyclitis | 1 | 1 | — | — | — |
| Glaucoma | 5 | 2 | 3 | — | — |
| External Muscles— | | | | | |
| Strabismus | 1 | 1 | — | — | — |
| Lacrymal Apparatus— | | | | | |
| Dacryo-cystitis | 1 | — | 1 | — | — |
| Orbit— | | | | | |
| Cellulitis | 1 | 1 | — | — | — |
| *Respiratory System*— | | | | | |
| Septum— | | | | | |
| Deflected | 27 | 16 | 11 | — | — |
| Polyp | 6 | 1 | 5 | — | — |
| Enlarged tonsils and deflected septum | 2 | 1 | 1 | — | — |
| Sinuses— | | | | | |
| Ethmoid— | | | | | |
| Ethmoiditis | 1 | 1 | — | — | — |
| Frontal— | | | | | |
| Sinusitis | 2 | 2 | — | — | — |
| Maxillary— | | | | | |
| Sinusitis | 1 | — | 1 | — | — |
| Pleura— | | | | | |
| Empyema— | | | | | |
| Acute | 10 | 9 | 1 | — | — |
| Chronic | 2 | 2 | — | — | — |
| *Alimentary System*— | | | | | |
| Teeth and Gums— | | | | | |
| Dental abscess | 2 | — | 2 | — | — |
| Dental caries | 1 | 1 | — | — | — |

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Alimentary System*—contd. | | | | | |
| Mouth— | | | | | |
| Ranula | 2 | — | 2 | — | — |
| Stomatitis, ulcerative | 1 | — | 1 | — | — |
| Tongue— | | | | | |
| Ulcer | 1 | 1 | — | — | — |
| Palate— | | | | | |
| Abscess | 1 | — | 1 | — | — |
| Tonsils— | | | | | |
| Tonsillitis | 51 | 23 | 28 | — | — |
| Tonsillitis and adenoiditis | 66 | 30 | 36 | — | — |
| Post operative hæmorrhage | 26 | 8 | 17 | 1 | — |
| Peri-tonsillar abscess | 3 | 1 | 2 | — | — |
| Salivary Glands— | | | | | |
| Parotid abscess | 1 | 1 | — | — | — |
| Œsophagus— | | | | | |
| Foreign body | 1 | — | 1 | — | — |
| Stomach— | | | | | |
| Adhesions | 4 | 4 | — | — | — |
| Hour-glass | 1 | — | 1 | — | — |
| Gastric ulcer | 16 | 9 | 5 | 1 | 1 |
| Gastric ulcer, perforated | 15 | 10 | 2 | 3 | — |
| Pyloric stenosis | 6 | 3 | 2 | 1 | — |
| Duodenum— | | | | | |
| Adhesions | 2 | 2 | — | — | — |
| Ulcer | 8 | 7 | 1 | — | — |
| Ulcer, perforated | 14 | 7 | — | 7 | — |
| Spleen— | | | | | |
| Rupture | 4 | 2 | — | 2 | — |
| Pancreas— | | | | | |
| Acute pancreatitis | 4 | — | 3 | — | 1 |
| Gall Bladder and Ducts— | | | | | |
| Cholangitis | 2 | — | 2 | — | — |
| Cholecystitis— | | | | | |
| Acute | 12 | 5 | 5 | 1 | 1 |
| Chronic | 5 | 1 | 3 | — | 1 |
| Cholecystitis with stone | 25 | 2 | 22 | — | 1 |
| Biliary fistula | 2 | — | — | — | 2 |
| Intestines— | | | | | |
| Appendicitis— | | | | | |
| Acute | 173 | 86 | 87 | — | — |
| With abscess | 11 | 7 | 4 | — | — |
| Acute, with general peritonitis | 42 | 25 | 11 | 4 | 2 |
| Gangrenous | 49 | 25 | 23 | 1 | — |
| Chronic | 79 | 32 | 47 | — | — |
| Appendicular abscess (appendix not found) | 16 | 6 | 9 | — | 1 |
| Constipation | 10 | 4 | 6 | — | — |
| Diverticulitis | 2 | — | — | 2 | — |
| Diverticulum | 3 | 2 | 1 | — | — |
| Enteritis, tuberculous | 1 | — | — | — | 1 |
| Hirschsprung's disease | 1 | — | — | 1 | — |
| Visceroptosis | 4 | — | 4 | — | — |
| Obstruction— | | | | | |
| Adhesions | 5 | 3 | 1 | 1 | — |
| Band | 11 | 6 | 3 | 1 | 1 |
| Intussusception | 13 | 5 | 5 | 2 | 1 |
| Scybala | 1 | 1 | — | — | — |
| Volvulus | 6 | 2 | 2 | 1 | 1 |
| Unclassified | 4 | — | — | 2 | 2 |

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Alimentary System*—contd. | | | | | |
| Rectum and Anus— | | | | | |
| Abscess— | | | | | |
| Ischio-rectal .. .. .. | 5 | 2 | 3 | — | — |
| Peri-anal .. .. .. .. | 3 | 3 | — | — | — |
| Dyschezia .. .. .. .. | 1 | — | 1 | — | — |
| Fibrosis sphincter .. .. .. | 1 | 1 | — | — | — |
| Fissure-in-ano .. .. .. | 1 | — | 1 | — | — |
| Hæmorrhoids .. .. .. .. | 23 | 15 | 8 | — | — |
| Imperforate anus .. .. .. | 1 | 1 | — | — | — |
| Prolapse rectum .. .. .. | 1 | — | 1 | — | — |
| Peritoneum— | | | | | |
| Ascites .. .. .. .. .. | 1 | — | 1 | — | — |
| Peritonitis— | | | | | |
| Acute general .. .. .. | 13 | — | 5 | 4 | 4 |
| Pneumococcal .. .. .. | 3 | — | 1 | — | 2 |
| Tuberculous .. .. .. .. | 4 | 2 | 1 | 1 | — |
| Hernia— | | | | | |
| Femoral .. .. .. .. | 11 | 4 | 7 | — | — |
| Femoral, strangulated .. .. | 13 | 4 | 6 | 2 | 1 |
| Inguinal .. .. .. .. | 79 | 61 | 17 | 1 | — |
| Inguinal, strangulated .. .. | 12 | 10 | 1 | 1 | — |
| Umbilical .. .. .. .. | 1 | 1 | — | — | — |
| Umbilical, strangulated .. .. | 6 | 2 | — | 3 | 1 |
| Ventral .. .. .. .. | 16 | 9 | 7 | — | — |
| Ruptured viscus .. .. .. | 2 | 1 | — | 1 | — |
| *Genito-Urinary System*— | | | | | |
| Symptomatic— | | | | | |
| Hæmaturia .. .. .. .. | 8 | 7 | 1 | — | — |
| Retention .. .. .. .. | 5 | 3 | 2 | — | — |
| Kidney— | | | | | |
| Calculus .. .. .. .. | 3 | 1 | 2 | — | — |
| Contusion .. .. .. .. | 1 | 1 | — | — | — |
| Cyst .. .. .. .. .. | 1 | — | 1 | — | — |
| Hypernephroma .. .. .. | 1 | 1 | — | — | — |
| Hydronephrosis .. .. .. | 1 | 1 | — | — | — |
| Mobile kidney .. .. .. .. | 1 | 1 | — | — | — |
| Perinephritis .. .. .. .. | 2 | — | 1 | — | 1 |
| Pyelitis .. .. .. .. | 3 | — | 3 | — | — |
| Pyelonephritis .. .. .. | 10 | 4 | 1 | 5 | — |
| Pyonephrosis .. .. .. .. | 3 | 1 | 1 | — | 1 |
| Pyonephrosis with calculus .. .. | 4 | 1 | 3 | — | — |
| Renal colic .. .. .. .. | 8 | 5 | 3 | — | — |
| Rupture, traumatic .. .. .. | 1 | — | 1 | — | — |
| Urethra— | | | | | |
| Caruncle .. .. .. .. | 2 | — | 2 | — | — |
| Stricture .. .. .. .. | 4 | 4 | — | — | — |
| Ureter— | | | | | |
| Calculus .. .. .. .. | 1 | 1 | — | — | — |
| Bladder— | | | | | |
| Calculus .. .. .. .. | 4 | 3 | — | 1 | — |
| Cystitis .. .. .. .. | 6 | 3 | 3 | — | — |
| Ectopia vesicæ .. .. .. | 2 | — | — | 2 | — |
| Extravasation of urine .. .. | 1 | — | — | 1 | — |
| Papilloma .. .. .. .. | 2 | 2 | — | — | — |
| Pyelocystitis .. .. .. .. | 2 | — | 2 | — | — |
| Supra-pubic fistula .. .. .. | 3 | 3 | — | — | — |
| Tuberculosis .. .. .. .. | 1 | — | 1 | — | — |
| Prepuce— | | | | | |
| Phimosis .. .. .. .. | 16 | 16 | — | — | — |

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Genito-Urinary System*—contd. | | | | | |
| Penis— | | | | | |
| Balanitis | 2 | 2 | — | — | — |
| Laceration | 1 | 1 | — | — | — |
| Prostate— | | | | | |
| Enlargement | 21 | 15 | — | 6 | |
| Fibrosis | 1 | 1 | — | — | — |
| Testes— | | | | | |
| Epididymitis | 3 | 3 | — | — | — |
| Epididymo-orchitis | 2 | 2 | — | — | — |
| Trauma | 1 | 1 | — | — | — |
| Undescended | 4 | 4 | — | — | — |
| Scrotum— | | | | | |
| Hydrocele | 1 | 1 | — | — | — |
| Spermatic cord— | | | | | |
| Hydrocele | 8 | 8 | — | — | — |
| Varicocele | 1 | 1 | — | — | — |
| Ovaries— | | | | | |
| Ovaritis | 2 | — | 2 | — | — |
| Abscess | 2 | — | 2 | — | — |
| Adenoma | 1 | — | 1 | — | — |
| Cyst— | | | | | |
| Dermoid | 2 | — | 2 | — | — |
| Multilocular | 17 | — | 17 | — | |
| Ruptured | 1 | — | 1 | — | |
| Twisted | 4 | — | 4 | — | — |
| Fallopian tube— | | | | | |
| Ectopic gestation | 9 | — | 9 | — | — |
| Hæmatosalpinx | 1 | — | 1 | — | — |
| Pyosalpinx | 7 | — | 7 | — | — |
| Salpingitis | 15 | — | 15 | — | — |
| Tuberculosis | 1 | — | 1 | — | — |
| Parametrium and adjacent peritoneum— | | | | | |
| Parametritis | 4 | — | 3 | — | 1 |
| Perimetritis | 3 | — | 3 | — | — |
| Adhesions | 4 | — | 4 | — | — |
| Uterus— | | | | | |
| Symptomatic— | | | | | |
| Dysmenorrhœa | 4 | — | 4 | — | — |
| Leucorrhœa | 2 | — | 2 | — | — |
| Menorrhagia | 2 | — | 2 | — | — |
| Metrorrhagia | 7 | — | 7 | — | — |
| Functional— | | | | | |
| Sterility | 1 | — | 1 | — | — |
| Endometrium— | | | | | |
| Endometritis | 34 | — | 34 | — | — |
| Displacements— | | | | | |
| Prolapse | 15 | — | 15 | — | — |
| Inversion | 1 | — | 1 | — | — |
| Retroflexion | 2 | — | 2 | — | — |
| Retroversion | 18 | — | 18 | — | — |
| New growths— | | | | | |
| Polypus, adenomatous | 1 | — | 1 | — | — |
| Myoma | 2 | — | 2 | — | — |
| Fibromyoma | 18 | — | 18 | — | — |
| Interstitial hyperplasia | 1 | — | 1 | — | — |
| Cervix— | | | | | |
| Cervicitis | 6 | — | 6 | — | — |
| Laceration | 1 | — | 1 | — | — |
| Polyp— | | | | | |
| Fibromyomatous | 1 | — | 1 | — | — |
| Mucous | 3 | — | 3 | — | — |

| — | Total. | Discharged. | | Died. | |
|---|---|---|---|---|---|
| | | Males. | Females. | Males. | Females. |
| *Genito-Urinary System*—contd. | | | | | |
| Vagina— | | | | | |
| Prolapse— | | | | | |
| Cystocele | 11 | — | 11 | — | — |
| Rectocele | 4 | — | 4 | — | — |
| Malformation— | | | | | |
| Septum | 1 | — | 1 | — | — |
| Vulva— | | | | | |
| Vulvitis | 2 | — | 2 | — | — |
| Bartholin's gland— | | | | | |
| Abscess | 3 | — | 3 | — | — |
| Cyst | 1 | — | 1 | — | — |
| Papilloma | 1 | — | 1 | — | — |
| Affections connected with pregnancy— | | | | | |
| Abortion— | | | | | |
| Complete | 11 | — | 11 | — | — |
| Incomplete | 75 | — | 75 | — | — |
| Septic | 5 | — | 2 | — | 3 |
| Threatened | 18 | — | 18 | — | — |
| Retained products of conception | 97 | — | 97 | — | — |
| Hydatidiform mole | 3 | — | 3 | — | — |
| Carneous mole | 2 | — | 2 | — | — |
| Affections connected with parturition— | | | | | |
| Laceration perineum | 2 | — | 2 | — | — |
| Affections consequent on parturition— | | | | | |
| Puerperal septicæmia | 4 | — | 1 | — | 3 |
| Puerperal toxæmia | 2 | — | 1 | — | 1 |
| Parametritis | 3 | — | 3 | — | — |
| Perimetritis | 3 | — | 1 | — | 2 |
| Pulmonary embolism | 1 | — | — | — | 1 |
| Phlegmasia alba dolens | 4 | — | 4 | — | — |
| Puerperal insanity | 2 | — | 1 | — | 1 |
| Puerperium | 1 | — | 1 | — | — |
| Post-partum eclampsia | 1 | — | 1 | — | — |
| Placenta prævia | 1 | — | 1 | — | — |

## Maternity Section.

| — | Total. | Discharged. | Died. |
|---|---|---|---|
| | | Females. | Females. |
| Normal | 755 | 755 | — |
| Abnormal— | | | |
| Breech | 8 | 8 | — |
| Premature | 12 | 12 | — |
| Ante-partum hæmorrhage | 6 | 6 | — |
| Post-partum hæmorrhage | 1 | 1 | — |
| Hydramnios | 3 | 3 | — |
| Retained chorion | 2 | 2 | — |
| Retained membranes | 2 | 2 | — |
| Eclampsia | 6 | 4 | 2 |
| Placenta prævia | 6 | 6 | — |
| Medical induction | 48 | 48 | — |
| Surgical induction | 27 | 27 | — |

| — | Total. | Discharged. | Died. |
|---|---|---|---|
| | | Females. | Females. |
| Abnormal—*contd.* | | | |
| Craniotomy | 3 | 2 | 1 |
| Episiotomy | 3 | 3 | — |
| Cæsarian | 3 | 3 | — |
| Version | 6 | 6 | — |
| Forceps | 38 | 38 | — |
| Septicæmia | 1 | — | 1 |
| Others | 6 | 6 | — |
| Undelivered | 21 | 21 | — |

Births—

| | |
|---|---|
| Born before admission (all live-births) | 7 |
| Live-births | 857 |
| Twins (live-births, 20 ; still-births, 4) | 12 |
| Still-births | 59 |
| Ante-partum eclampsia (undelivered) | 1 |
| Undelivered (discharged not in labour and not returning for delivery) | 21 |

Infants—

| | | | |
|---|---|---|---|
| Living (born in hospital) | 877 | Discharged living | 854 |
| ,, (born before admission) | 7 | Died in hospital | 29 |
| Still-born | 63 | Still-born | 63 |
| | | Remaining (spina-bifida) | 1 |
| | 947 | | 947 |

## Operations Performed in Main Theatre by Resident Surgical Staff.

From 1st April, 1930 to 31st December, 1930 (nine months). Grand total, 1,829.

Operations : Gastric and Duodenal (68)—

Gastric (37)—

*Abdominal Sections*—

| | |
|---|---|
| Polya operations—various | 6 |
| Gastrostomy | 1 |
| Gastro-enterostomy for pyloric stenosis | 5 |
| Shoemaker resection—lesser curve ulcer | 2 |
| Sleeve resection—gastric ulcer | 1 |
| Resection for gastric and duodenal ulcer and gastro-enterostomy | 1 |
| Suture perforated gastric ulcer | 9 |
| Gastro-jejunostomy with resection of gastric ulcer | 5 |
| Undoing of gastro-enterostomy | 5 |
| Gastro-enterostomy for gastric cancer | 1 |
| Ramstedt's operation for congenital pyloric stenosis | 1 |

Duodenal (31)—

*Abdominal Sections*—

| | |
|---|---|
| Suture perforated duodenal ulcer | 19 |
| Suture perforated duodenal ulcer with gastro-enterostomy | 3 |
| Gastro-enterostomy for duodenal ulcer | 9 |

Operations on Biliary Passages (40)—

*Abdominal Sections*—

| | |
|---|---|
| Cholecystectomy—various | 32 |
| Cholecystostomy | 2 |
| Choledochostomy for stone in common duct | 3 |
| Cholecystostomy for acute pancreatitis | 1 |
| Cholecystgastrostomy for obstructive jaundice | 2 |

Herniotomy (138)—

| | |
|---|---|
| Femoral hernia | 12 |
| Femoral hernia—strangulated | 18 |
| Inguinal hernia | 75 |
| Inguinal hernia—strangulated | 12 |
| Umbilical hernia | 3 |
| Umbilical hernia—strangulated | 2 |
| Epigastric hernia | 2 |
| Incisional hernia—abdominal wall | 13 |
| Internal hernia | 1 |

Operations for Diseases of Small Intestine (33)—

*Abdominal Sections*—

| | |
|---|---|
| Adhesiolysis for peritoneal adhesions | 10 |
| Adhesiolysis for peritoneal adhesions with acute obstruction | 12 |
| Resection and end to end anastomosis | 1 |
| Amputation, &c., Meckel's diverticulum | 2 |
| Enterostomy for paralytic ileus | 6 |
| Resection and anastomosis for gangrene n hernia | 2 |

OPERATIONS FOR DISEASES OF PERITONEAL CAVITY (48)—
*Abdominal Sections*—
Laparotomy and drainage for peritonitis—
Tubercular .. .. .. .. 4
General—cause not defined .. .. 12
Volvulus .. .. .. .. 3
Pneumococcal peritonitis .. .. 2
Gastric syphilis .. .. .. 1
Laparotomy for inoperable carcinoma—various .. .. .. .. 14
Laparotomy for visceroptosis .. .. 5
Laparotomy—exploratory .. .. 7

OPERATIONS FOR AFFECTIONS OF APPENDIX (265)—
*Abdominal Sections*—
Appendicectomy without drainage .. 168
Appendicectomy with drainage .. 77
Drainage of appendix abscess only .. 20

OPERATIONS FOR DISEASES OF COLON, RECTUM AND ANUS (104)—
*Abdominal Sections*—
Anastomosis—
Ileo-transverse colon for carcinoma .. 4
End to end after resection of carcinoma 7
Cæcostomy for colonic obstruction .. 12
Closure of stercoraceous perforation .. 1
Mikulicz's colostomy .. .. .. 1
Pelvic colostomy .. .. .. .. 6
Anastomosis—side to side for colonic obstruction .. .. .. .. 3
Abdomino-pelvic slinging for prolapsus recti .. .. .. .. .. 1
Hemi-colectomy for carcinoma of cæcum 1
Abdomino-perineal resection for carcinoma of rectum .. .. .. 4
Excision of cæcum for intussusception .. 2
Reduction—ileo-cæcal intussusception .. 8
Laparotomy for Hirschsprung's disease 1
Laparotomy for diverticulitis pelvic colon 1
*Extra-abdominal Sections*—
Ligature of hæmorrhoids .. .. 20
Cauterisation of hæmorrhoids .. .. 1
Sigmoidoscopy .. .. .. .. 20
Radical cure—
Fissure-in-ano .. .. .. .. 1
Fistula-in-ano .. .. .. .. 4
Operation for imperforate anus .. 1
Peri-anal injection for prolapsus recti .. 2
Diathermy for peri-anal papilloma .. 1
Diathermy for carcinoma of rectum .. 2

OPERATIONS ON URINARY TRACT (161)—
*Abdominal Sections*—
Nephrectomy—various .. .. .. 10
Nephrotomy .. .. .. .. 5
Nephropexy .. .. .. .. 1
Transplantation of ureters .. .. 2
*Extra-abdominal*—
Cystoscopy—
Exploratory .. .. .. .. 60
With pyelography .. .. .. 20
Circumcision .. .. .. .. 4
Supra-pubic cystostomy for drainage of bladder .. .. .. .. .. 17
Dilatation—urethral stricture .. .. 7
Supra-pubic lithotomy .. .. .. 4
Supra-pubic prostatectomy .. .. 14
Suture of traumatic rupture of urethra 1
Internal urethrotomy .. .. .. 1
Catheterisation .. .. .. .. 1
Diathermy for prostatic tags .. .. 7
Diathermy for growths of bladder .. 7

OPERATIONS: MALE GENERATIVE (17)—
Radical cure—hydrocele .. .. 6
Radical cure—varicocele .. .. 1
Reposition of testis-undescended .. 6
Orchidectomy .. .. .. .. 3
Amputation of penis-carcinoma .. 1

GYNÆCOLOGICAL OPERATIONS (383)—
*Curettage* (228)—*for*
Retained Products of Conception .. 175
Endometritis .. .. .. .. 33
Dysmenorrhœa .. .. .. .. 6
Hydatidiform mole .. .. .. 1
Diagnostic .. .. .. .. 7
Uterine polypus .. .. .. .. 1
Puerperal endometritis .. .. .. 1
Inevitable abortions .. .. .. 4
*Operations for Prolapsus Uteri* (25)—
*Abdominal Sections*—
Perineorrhaphy and ventro-fixation .. 1
Perineorrhaphy and abdominal shortening of round ligaments .. .. 4
Perineorrhaphy, anterior colporrhaphy and abdominal shortening of round ligaments .. .. .. .. 5
*Extra-abdominal*—
Perineorrhaphy and anterior colporrhaphy .. .. .. .. 10
Perineorrhaphy, anterior colporrhaphy and amputation of cervix .. 3
Perineorrhaphy, anterior colporrhaphy and trachelorrhaphy .. .. 2
*For Retroversion* (17)—
*Abdominal Sections*—
Abdominal shortening of round ligaments—Gilliam .. .. .. 12
Abdominal shortening of round ligaments—Webster-Baldy .. .. 3
Ventro-fixation .. .. .. 2
*Affections of Cervix* (7)—
*Extra-abdominal*—
Laceration—trachelorrhaphy .. 2
Chronic cervicitis—amputation .. 3
Vaginal myomectomy .. .. .. 1
Excision for cervical polypus .. 1
*Affections of Vulva and Vagina* (7)—
*Extra-abdominal*—
Excison—urethral carbuncle .. .. 2
Excision—Bartholinian cyst .. .. 1
Excision—lipoma-labia .. .. 1
Rupture of hymen .. .. .. 2
Excision—papilloma of vulva .. 1
*Cæsarean Section* (5)—
*Abdominal Sections*—
For contracted pelvis .. .. 3
,, central placenta prævia .. .. 1
,, uræmia .. .. .. .. 1
*Operations for Uterine Diseases* (18)—
*Abdominal Sections*—
Fibromyomata—myomectomy .. 3
Fibromyomata—sub-total hysterectomy .. .. .. .. .. 3
Fibromyomata—total hysterectomy 4

GYNÆCOLOGICAL OPERATIONS—*continued.*

| | |
|---|---|
| *Extra-abdominal*— | |
| Fibromyomata—pan-hysterectomy | 3 |
| Fibrosis uteri—total hysterectomy | 3 |
| Carcinoma uteri— | |
| Pan-hysterectomy | 1 |
| Hysterography | 1 |
| *Operations for Tubes and Ovaries* (61)— | |
| *Abdominal Sections*— | |
| Ruptured tubal pregnancies— | |
| Salpingectomy | 7 |
| Salpingo-oophorectomy | 3 |
| Pyosalpinx— | |
| Salpingostomy | 7 |
| Double salpingectomy | 2 |
| Single salpingo-oophorectomy | 8 |
| Double salpingo-oophorectomy | 5 |
| Sterility—double salpingostomy | 1 |
| Varicocele-broad ligament—excision | 1 |
| Ovarian cyst— | |
| Ovariotomy | 17 |
| Salpingo-oophorectomy | 3 |
| Twisted ovarian cyst—ovariotomy | 2 |
| Carcinoma of ovary—ovariotomy | 1 |
| Chronic ovaritis—ovariotomy | 1 |
| Cystic ovary—partial ovarectomy | 1 |
| Therapeutic sterility—ligature of fallopian tubes | 2 |
| *Examinations under Anæsthesia* (15)— | |
| *Extra-abdominal*— | |
| Various | 14 |
| Injection of lipiodal | 1 |

ORTHOPÆDIC OPERATIONS (241)—

| | |
|---|---|
| *Amputations—Various*— | |
| Leg or thigh | 16 |
| Disarticulation at hip | 1 |
| Arm | 1 |
| Fingers | 6 |
| Foot | 5 |
| Arthroplasty—various | 3 |
| Diaphysectomy—partial | 1 |
| Excision—semi-lunar cartilage | 8 |
| Removal of foreign body—knee-joint | 1 |
| Excision—pre-patellar bursa | 2 |
| Joint movements—forcible under anæsthesia | 8 |
| Osteotomy for deformity of legs | 2 |
| Incision and drainage—pre-patellar bursitis | 11 |
| Plaster applications—fractures and joint diseases | 31 |
| Fracture reduction | 32 |
| Plating bones—for fractures, various | 14 |
| Insertion of Steinmann's pin | 6 |
| Removal of pin | 1 |
| Plates—removal of | 10 |
| Suture of fractured patella | 4 |
| Removal of wire in patella | 1 |
| Tendon lengthening—various | 2 |
| Tenotomy, &c., for torticollis | 1 |
| Tendon suture— | |
| Hand | 3 |
| Wrist | 1 |
| Leg | 2 |
| Foot | 2 |
| Operations for acute osteo-myelitis—various | 28 |
| Sequestrectomy | 21 |
| Reduction of dislocations | 7 |
| Removal—calcanean spur | 1 |
| Excision—Baker's cyst | 1 |
| Excision—ganglion | 2 |
| Arthrotomy and drainage | 5 |
| Excision—perforating ulcer of foot | 1 |

OPERATIONS ON EAR, NOSE AND THROAT (43)—

| | |
|---|---|
| Myringotomy | 3 |
| Œsophagoscopy and removal of foreign body | 2 |
| Mastoid operation | 25 |
| Drainage of maxillary sinus | 1 |
| For naso-pharangeal hæmorrhage | 1 |
| For arrest of tonsillar hæmorrhage | 5 |
| Excision—ranula | 1 |
| Exploratory œsophagoscopy | 1 |
| Diathermy—carcinoma of fauces | 2 |
| Diathermy—carcinoma of tongue | 2 |

OPERATIONS ON THORAX (22)—

| | |
|---|---|
| Rib, resection and drainage for empyema | 10 |
| Thoracotomy, intercostal and drainage | 3 |
| Exploratory aspirations | 2 |
| Sub-phrenic abscess—drainage | 1 |
| Artificial pneumothorax | 6 |

OPERATIONS ON NERVOUS SYSTEM (10)—

| | |
|---|---|
| Trephine for cerebral abscess, drainage | 2 |
| Exploratory craniotomy for tumour | 2 |
| Elevation of depressed fracture of skull | 3 |
| Ventricular puncture for ventriculography | 2 |
| Exploration of brachial plexus | 1 |

OPERATIONS ON GLANDULAR TISSUES (29)—

| | |
|---|---|
| *Abdominal Section*— | |
| Splenectomy | 1 |
| *Extra-abdominal*— | |
| Dissection, block for carcinoma glands | 2 |
| Excision, carcinoma glands neck | 2 |
| Amputation of breast for chronic mastitis | 2 |
| Excision of adenoma of breast | 2 |
| Radical amputation of breast for carcinoma | 11 |
| Excision of breast tumour | 1 |
| Excision, tuberculous glands, neck | 4 |
| Removal of stone in sub-maxillary duct | 1 |
| Hemi-thyroidectomy (exophthalmic goitre) | 1 |
| Excision of thyroid cyst | 2 |

PLASTIC OPERATIONS (12)—

| | |
|---|---|
| Various | 1 |
| Nævus | 1 |
| Reconstruction of abdominal wall | 9 |
| Cleft palate, &c. | 1 |

ABSCESSES, &C., INCISION AND DRAINAGE (133)—

| | |
|---|---|
| Various | 105 |
| Cellulitis—suppurative | 22 |
| Carbuncles | 6 |

Miscellaneous (82)—

| | |
|---|---|
| Carellization of wounds | 4 |
| Debridement of wounds | 34 |
| Excision, lipomata | 3 |
| Excision, simple tumours | 4 |
| Excision of gland for microscopy—Hodgkin's disease | 1 |
| Suture of cut throat | 3 |
| Evacuation of hæmatoma | 1 |
| Wiring of fractured jaw | 1 |
| Ligature of artery | 3 |
| Excision of sinus | 1 |
| Pericardotomy and drainage | 1 |
| Removal of foreign body | 7 |
| Embolectomy for femoral embolus | 1 |
| Skin-graft—various | 6 |
| Removal of nail | 1 |
| Repair of hare lip | 1 |
| Diathermy for rodent ulcer | 1 |
| Removal of portion of growth for microscopy | 2 |
| Blood transfusions | 7 |

Operations involving the Use of Radium with General Anæsthetic—

| | |
|---|---|
| Insertion of Radium for Carcinoma of— | |
| Cervix | 34 |
| Uterus | 8 |
| Bladder | 1 |
| Lip | 2 |
| Tongue | 2 |
| Insertion of radium for lupus of lip | 1 |
| Radium Halsted operation for carcinoma of breast | 2 |
| Removal of radium from lip | 2 |
| Removal of radium needles | 1 |

This list does not include a large number of operations and manipulations with radium, in the department and in the wards, *without* general anæsthetic.

## APPENDIX II.

## EXTRACT FROM THE ANNUAL REPORT ON THE WORK OF PARK ROYAL HOSPITAL DURING 1930, PREPARED BY THE MEDICAL SUPERINTENDENT.

### Medical and Nursing Staff.

*Resident—*

Medical Superintendent—
W. E. Turner, M.R.C.S., L.R.C.P.

Assistant Medical Officers—
T. G. I. James, M.B., B.Ch., B.Sc.(Wales), F.R.C.S.(Eng. & Edin.),
N. M. Matheson, M.B., Ch.B.(N.Z.), F.R.C.S.(Eng.), M.R.C.P.(Lond.)
A. D. Abdullah, M.B., Ch.M. (Syd.), M.R.C.P.(Lond.).

Matron—
Miss B. Gebhard.

*Non-resident—*

Radiologist (part-time)—
A. Flett, M.D.(Aberd.), D.M.R.E.(Camb.).

Physician—
C. M. Wilson, M.D.(Lond.), F.R.C.P.

Ear, Nose and Throat Surgeon—
F. W. C. Capps, F.R.C.S.(Eng.).

Surgeon—
Julian Taylor, M.S.(Lond.), F.R.C.S. (Eng.).

Dental Surgeon—
J. J. Stevens, L.D.S.

Ophthalmic Surgeon—
A. Rugg-Gunn, F.R.C.S.(Eng.).

Park Royal Hospital is situated in the south-west corner of Willesden parish and it adjoins Acton parish to the south and Twyford to the west. It faces south, its gates open into Acton Lane and it has grounds of 60 acres. Willesden parish was separated from Hendon in 1896, and Park Royal Hospital, built as an infirmary, was opened in December, 1902, for the accommodation of 150 sick, the other wards being occupied by 280 workhouse inmates. Owing to the growth of the parish. the sick gradually ousted the other inmates, and in May, 1907, two blocks of 100 beds and a nursery block of 50 beds were added. These buildings allowed the hospital proper to be used entirely for sick.

In 1903 additional wards of 50 beds were added to the hospital, and in 1907 a dining hall for 800 and two blocks of 90 beds each for the aged and infirm.

In 1914, as the sick greatly preponderated, the Guardians placed the whole of the institution under a resident medical superintendent, who was appointed chief administrative officer (*i.e.*, master).

The hospital is electrically lighted and heated by its own plant and runs its own laundry. There is a nurses' home attached, which is built for 130 nurses.

Park Royal Hospital for many years has been a recognised training school for nurses.

There is a fully equipped and up-to-date operating theatre, a recent X-ray apparatus and also a portable set.

There is a separate maternity block with 14 beds and 14 cots.

The accommodation provided is 564 beds in the hospital, 88 male aged, 64 female aged, 50 in the nursery, 100 male house, and 43 female house, making a total of 909.

| Year. | Population of Parish. | Number of Patients in Park Royal Hospital. | | Total of Indoor Poor. |
|---|---|---|---|---|
| | | Sick. | Other Wards. | |
| 1901 .. .. .. .. .. .. | 114,811* | — | — | 274 |
| 1911 .. .. .. .. .. .. | 154,214* | 186 | 456 | 642 |
| 1921 .. .. .. .. .. .. | 165,674* | 380 | 250 | 630 |
| 1930 .. .. .. .. .. .. | 180,000† | 626 | 135 | 761 |

* Census. † Estimated.

ADMISSIONS, DISCHARGES, &c., SINCE 1925.

| Year ended Dec, 31st. | Total Admissions (including births). | Births. | Deaths. | Other Discharges. | Highest No. of Inmates. | Lowest No. of Inmates. |
|---|---|---|---|---|---|---|
| 1925 .. .. | 2,758 | 194 | 431 | 2,281 | — | — |
| 1926 .. .. | 3,603 | 312 | 443 | 2,655 | 759 | 658 |
| 1927 .. .. | 3,087 | 295 | 452 | 2,650 | 787 | 653 |
| 1928 .. .. | 3,663 | 349 | 496 | 2,971 | 818 | 679 |
| 1929 .. .. | 3,767 | 397 | 595 | 3,258 | 844 | 673 |
| 1930 .. .. | 3,886 | 491 | 518 | 3,470 | 808 | 713 |

CLASSIFICATION OF DEATHS, ACCORDING TO AGE.

| Ages (years). | Under 1. | 1–3. | 3–16 | 16–40. | 40–50. | 50–60. | 60–70. | Over 70. |
|---|---|---|---|---|---|---|---|---|
| No. .. .. .. | 63 | 23 | 12 | 52 | 40 | 59 | 99 | 170 |

Total, 518

CLASSIFICATION OF ADMISSIONS OF PATIENTS ACCORDING TO DISEASE.

| | Adults. | Children Under 16. |
|---|---|---|
| Acute infectious disease .. .. .. | 14 | 31 |
| Influenza .. .. .. .. .. .. | 12 | 54 |
| Tuberculosis, pulmonary .. .. .. | 75 | 3 |
| ,, non-pulmonary .. .. .. | 3 | 3 |
| Malignant disease .. .. .. .. | 84 | 6 |
| Rheumatism, acute .. .. .. .. | 26 | 7 |
| ,, subacute .. .. .. .. | 12 | 8 |
| ,, chronic .. .. .. .. | 19 | 1 |
| Venereal disease .. .. .. .. | 2 | 1 |
| Puerperal pyrexia .. .. .. .. | 10 | — |
| Puerperal fever .. .. .. .. .. | — | — |
| Diseases of child bearing .. .. .. | 31 | 18 |
| Mental diseases .. .. .. .. .. | 74 | 1 |
| Senile decay .. .. .. .. .. | 80 | — |
| Accidents and violence .. .. .. .. | 364 | 90 |
| Nervous and sense organs .. .. .. | 148 | 38 |
| Respiratory system .. .. .. .. | 230 | 125 |
| Circulatory system .. .. .. .. | 264 | 4 |
| Digestive system .. .. .. .. .. | 273 | 104 |
| Genito-urinary system .. .. .. .. | 123 | 14 |
| Skin diseases .. .. .. .. .. | 55 | 35 |
| Other diseases and maternity .. .. .. | 669 | 40 |
| Healthy, including newly-born infants .. | 130 | 620 |

For the accommodation of the above there are :—

| Acute medical beds : | Acute surgical beds : | Acute children's cots : |
|---|---|---|
| Male, 50. Female, 50. | Male, 50. Female, 50. | Male and Female, 30. |

but there are acute cases in all the other wards overflowing from the above.

ANÆSTHESIA.

| General. | Intrathecal. | Local. | Nitrous oxide. | Total. |
|---|---|---|---|---|
| 525 | 115 | 155 | 14 | 809 |

## Operations.

Major, 377. Minor, 597. Total, 974.

| | |
|---|---|
| *Stomach and Intestines—* | |
| Laparotomy | 23 |
| Appendicectomy | 109 |
| Drainage appendix abscess | 4 |
| General peritonitis | 8 |
| Gastrectomy | 6 |
| Gastro-enterostomy | 9 |
| Jejunostomy | 2 |
| Gastrostomy | 2 |
| Perforated peptic ulcer | 12 |
| Colostomy (obstruction) | 7 |
| Abdomino-perineal excision of rectum | 1 |
| Enterostomy | 1 |
| *Kidney and urinary organs—* | |
| Nephrectomy | 2 |
| Nephrolithotomy | 1 |
| Pyonephrosis (drainage of) | 2 |
| Ureteral calculi (removed) | 1 |
| Prostatectomy | 4 |
| Supra-pubic cystotomy | 10 |
| ,, lithotomy | 2 |
| Diverticulum of bladder | 1 |
| Nephropexy | 1 |
| *Liver, gall bladder, &c.—* | |
| Cholecystectomy | 6 |
| Cholecystotomy | 8 |
| Cholecystectomy and gastro-enterostomy | 1 |
| *Herniæ—* | |
| Radical cure, incisional hernia (Gallie's graft) | 1 |
| Radical cure, inguinal hernia | 22 |
| ,, ,, umbilical hernia | 1 |
| Hydrocele and orchidectomy | 6 |
| Strangulated umbilical hernia | 2 |
| ,, ,, femoral hernia | 1 |
| ,, ,, inguinal hernia | 6 |
| ,, ,, ,, ,, (resection of gut) | 1 |
| *Female generative and genito-urinary organs—* | |
| Pan-hysterectomy | 3 |
| Sub-total hysterectomy | 6 |
| Salpingo-oophorectomy | 1 |
| Salpingectomy (ectopic gestation) | 2 |
| Ruptured uterus sutured | 1 |
| Ovariotomy | 6 |
| Laparotomy, carcinoma ovaries | 1 |
| Bonney's operation for retroversion | 3 |
| Sterilisation (cardiac) | 1 |
| Pelvic peritonitis (salpingitis) abdominal section-drainage | 12 |
| Cæsarian section | 1 |
| Radical amputation of breast | 2 |
| Excision of cyst of breast | 1 |
| Vaginal removal of fibroid | 2 |
| Colpo-perineorrhaphy | 3 |
| Trachelorrhaphy and perineorrhaphy | 2 |
| Amputation of cervix uteri and perineorrhaphy | 1 |
| Perineorrhaphy | 5 |
| Evacuation of uterus (incomplete abortion) | 60 |
| Diagnostic curettage | 8 |
| Section from cervix for diagnosis | 4 |
| Mastitis (incisional) | 17 |
| Tubal induction of labour | 14 |
| Examination under anæsthesia | 12 |
| Incision of Bartholin's abscess | 4 |
| Placenta prævia (vaginal plugging) | 2 |
| *Chest—* | |
| Resection of rib (empyema) | 14 |
| Drainage sub-phrenic abscess | 1 |
| *Head, neck and spine—* | |
| Mastoidectomy and exploration of sinus | 5 |
| ,, | 9 |
| Skull, trephine (fracture) | 2 |
| Laminectomy | 3 |
| Tracheotomy | 2 |
| Laryngotomy | 1 |
| Bronchial cyst | 1 |
| Excision—glands of neck | 1 |
| *Bones, joints, tendons—* | |
| Open reduction of fracture | 5 |
| Bone plating, femur | 1 |
| Repair, fracture patella | 6 |
| Cyst excised, upper diaphysis of humerus | 1 |
| Semi-lunar cartilage | 1 |
| Removal of foreign body from knee-joint | 1 |
| Sequestrectomy | 3 |
| Repair of torn tendons | 6 |
| Exploration of tibia | 1 |
| Excision of tibia | 1 |
| *Amputations—* | |
| Upper extremities | 2 |
| Lower extremities | 7 |
| Toes or fingers | 7 |
| *Minor operations—* | |
| Cystoscopy | 55 |
| Cystoscopy with ureteric catheterisation | 22 |
| Sigmoidoscopy | 11 |
| Tonsillectomy with curretage of adenoids | 31 |
| Skin grafting | 8 |
| Dental extractions (mostly multiple) | 74 |
| Excision of hæmorrhoids | 5 |
| Suturing of lacerated wounds | 28 |
| Incision of cellulitis, abscesses, &c. | 72 |
| Dissection of tonsils | 1 |
| Excision sebaceous cysts | 6 |

## Maternity Department.

No. of confinements—

| | |
|---|---|
| Relieving officer's and master's orders | 135 |
| Willesden Urban District Council cases | 374 |
| Total | 509 |
| No. of live-births | 495 |
| No. of still-births | 20 |
| Multiple confinements | 6 |
| Maternal deaths | 4 |

## Maternity Department—*continued.*

Causes of maternal deaths—

| | |
|---|---|
| Ruptured uterus and bladder | 1 |
| Placenta prævia | 2 |
| Sapræmia and pyelitis | 1 |
| Total | 4 |

Causes of still-births—

| | |
|---|---|
| Placenta prævia | 5 |
| Ruptured uterus and bladder | 1 |
| Ruptured uterus and albuminuria | 1 |
| Prolapse of cord | 1 |
| Breech | 4 |
| Transverse lie | 1 |
| Prolonged second stage | 1 |
| Macerated fœtus | 4 |
| Premature twin | 1 |
| Premature | 1 |
| Total | 20 |

Causes of death of infants within 10 days—

| | |
|---|---|
| Prematurity and feebleness | 8 |
| Intracranial injury | 1 |
| Hare lip and cleft palate | 1 |
| Total | 10 |

Abnormalities of delivery—

| | |
|---|---|
| Unreduced occipito-posterior | 4 |
| Transverse lie | 2 |
| Face | 1 |
| Forceps | 19 |
| Adherent placenta | 9 |
| Placenta prævia | 7 |
| Ruptured uterus and bladder | 1 |
| Ruptured uterus | 1 |
| Cæsarean section | 1 |
| Induction | 10 |
| Albuminuria | 14 |
| Pyelitis | 2 |
| Eclampsia | 2 |
| Epilepsy | 2 |
| Puerperal insanity | 1 |

## Radiological Department.

| | |
|---|---|
| Radiographs taken | 3,861 |
| Screenings | 223 |
| Including barium meals | 119 |
| X-ray therapy treatments | 60 |

## Ultra Violet Ray Department.

| | |
|---|---|
| Treatments given | 606 |

## Massage Department.

| | |
|---|---|
| Patients treated | 284 |
| Massage treatments | 4,834 |

## Electrical Department.

| | |
|---|---|
| Treatments given | 372 |

## Mental Patients.

| | |
|---|---|
| Admitted on mental orders | 103 |
| Certified for hospital treatment | 73 |
| Discharged well, uncertified | 30 |

## Out-Patient Department.

| | |
|---|---|
| Out-patient attendances | 553 |
| Out-patients admitted | 27 |

# APPENDIX III.

## EXTRACT FROM THE ANNUAL REPORT ON THE WORK OF REDHILL HOSPITAL DURING 1930, PREPARED BY THE MEDICAL SUPERINTENDENT.

### Work of the Hospital.

The statistical tables deal with this section in detail.

### Special Departments.

The number of special departments remains unchanged. The work of all has increased.

*X-Ray.*

Owing to an increase in the work of this department it was found necessary to engage the services of the radiologist for an additional weekly session. Since February, Dr. G. Simon has attended twice a week, viz., on Monday and Wednesday afternoons.

A new X-ray couch and new screening stand have been supplied, and Metallix tubes substituted for Coolidge tubes. Excellent results are obtained with the new apparatus.

The accommodation allotted to the department has long been inadequate.

*Maternity.*

During the past year the services of two medical officers have been required each Monday afternoon at the ante-natal clinic to deal with the increasing number of women attending. The majority of admissions is *via* the ante-natal clinic. For the third year in succession there has been a great increase in the number of maternity cases admitted. During August and September the department worked to capacity.

On the 1st October the number of maternity beds was increased from 21 to 25, and infants' cradles from 19 to 25.

*Ear, Nose and Throat.*

Patients suffering from diseases of the ear, nose and throat are nursed in every ward of the hospital, the maternity ward excepted. The number treated each year steadily increases and is now sufficiently large to warrant the reservation for ear, nose and throat cases of special wards staffed by nurses trained in the speciality. If such special wards existed the length of stay in hospital of these cases would be appreciably shortened, a number of beds in other wards would become available for ordinary cases and the work of some wards, which is particularly heavy by reason of the presence of these special cases, would be lightened.

In April, 1929, arrangements were made with the Hendon Education Committee for the operation for removal of tonsils and adenoids to be performed at this hospital on a certain proportion of children, considered by the school medical officers, to be in need of such. During the past year 176 children were admitted under this arrangement. In November, owing to an increase in the number of patients sent for removal of tonsils and adenoids, both by school medical officers and other doctors, arrangements were made for the operations to be performed on two mornings each week. Children admitted at 5 p.m. on Monday for operation on Tuesday, are discharged at 10 a.m. on Wednesday, and those admitted at 5 p.m. on Wednesday for operation on Thursday, are discharged at 10 a.m. on Friday.

*Dental.*

In order to facilitate the work of this department, permission was given in November to engage the dental surgeon for an extra session each week, when and if required. During the year Mr. J. A. Hudson has been called upon to treat a large number of cases of fractured jaw. The results he has obtained by the application of jaw splints have been exceptionally good.

*Pathological.*

The medical officers and the dispenser-biochemist are responsible for the routine examinations. Specimens for bacteriological, histological and for certain investigations of a special nature, are sent to the University College Hospital Pathological Laboratory.

In 1929 permission to employ an apprentice to the dispenser was granted by the Pharmaceutical Society of Great Britain. On the 1st January, 1930, the apprentice appointed commenced her training. The more elementary pathological examinations are now done by her.

## Beds.

On the 1st January, 1930, there were 201 beds. On the 1st April the number was increased to 205 by the addition of 4 children's cots.

On the 1st October 7 infants' cradles (maternity) and 1 ordinary bed (female) were added, thus bringing the number up to 213, which remains the total to-day.

In a building designed for 175 beds there are to-day 213 beds fully equipped. There is overcrowding in some wards. The male and female isolation wards are always overcrowded. The children's ward is, more often than not, overcrowded. Owing to closure of the isolation block attached to the children's homes, sick children from the homes are now admitted to hospital. These increase the congestion in this department. At times the maternity wards become dangerously overcrowded. No more beds can be added, with safety, to any ward.

## Medical Meetings.

On 21st March and on 11th June the Hendon Division of the British Medical Association held clinical evenings at this hospital. On 21st November the combined Hendon and Harrow Divisions of the British Medical Association held a clinical evening here. The meetings were largely attended and voted a great success.

## Co-operation with General Medical Practitioners.

Unfortunately there is a tendency for those working in hospitals to overlook the fact that most patients sent in for treatment are in their charge for a relatively short period of their illnesses. Patients come from practitioners and to practitioners the majority returns. If the results of investigation, treatment and operation, together with a recommendation in regard to the future line of treatment, are not communicated to the practitioner, a full hospital service is not being given. In this connection it is interesting to note that during the year more than 1,100 letters were sent by the Medical Superintendent to practitioners on the discharge of their patients. The letters of thanks received from practitioners show how much this service is appreciated.

## Medical Staff.

*Resident—*

1 Medical Superintendent.
1 Deputy Medical Superintendent.
2 Assistant Medical Officers.

*Visiting—*

1 Surgeon.
1 Radiologist.
1 Dental Surgeon.

## Beds.

The beds allotted to men, women and children are as follows :—

| | | |
|---|---|---|
| Male, medical | 32 | |
| Male, surgical | 30 | |
| Male, isolation | 7 | |
| | — | 69 |
| Female, medical | 28 | |
| Female, surgical | 28 | |
| Female, isolation | 8 | |
| | — | 64 |
| Maternity beds | 25 | |
| Maternity cradles | 25 | |
| | — | 50 |
| Children under seven | | 28 |
| Sick nurses | | 2 |
| Total | | 213 |

Each medical ward has, in addition, one special heart chair wherein a case of severe heart failure can be nursed continuously.

STATISTICAL TABLES FOR THE YEAR ENDED 31ST DECEMBER, 1930.

| | | |
|---|---|---|
| Remaining in hospital 1st January, 1930 | | 157 |
| Admitted | | 2,784 |
| Born in hospital | | 401 |
| | | 3,342 |
| Discharged | | 2,898 |
| Died | | 261 |
| Patients treated to a conclusion during the year | | 3,159 |
| Remaining in hospital on 31st December, 1930 | | 183 |

*Classification of Patients Treated to a Conclusion.*

| | | |
|---|---|---|
| Male infants under 3 | | 308 |
| Boys, 3–16 | | 353 |
| Men | | 765 |
| | | 1,426 |
| Female infants under 3 | | 259 |
| Girls, 3–16 | | 256 |
| Women | | 1,218 |
| | | 1,733 |
| Total | | 3,159 |

The number of patients treated to a conclusion during the year is the subject of the tables which follow.

The diseases and operations are classified according to the nomenclature of diseases (Fifth Edition, 1918) drawn up by the Royal College of Physicians of London.

I.—TABLE SHOWING HOW THE 3,159 PATIENTS TREATED TO A CONCLUSION DURING THE YEAR WERE ORIGINALLY ADMITTED.

| | |
|---|---|
| By order of Clerk, County Medical Officer or Director of Public Assistance | 285 |
| By relieving officers' orders | 1,057 |
| By Medical Superintendent :— | |
| Births | 391 |
| Police cases (other than accidents) | 41 |
| Accidents | 405 |
| Maternity cases | 68 |
| Other urgent cases | 663 |
| Transfers from Middlesex County Council institutions or homes | 68 |
| Transfers from Middlesex County Council hospitals | 2 |
| Transfers from other authorities, hospitals or institutions | 3 |
| By agreement with another authority | 176 |
| Total | 3,159 |

Of the above patients, 57·5 per cent. were admitted by the Medical Superintendent.

| | |
|---|---|
| Admitted twice during the year | 97 |
| Admitted thrice during the year | 1 |

II.—TABLE SHOWING THE PARISHES TO WHICH THE 3,159 PATIENTS TREATED BELONGED.

| | |
|---|---|
| Edgware | 93 |
| Hendon | 1,806 |
| Kingsbury | 256 |
| Little Stanmore | 179 |
| Pinner | 62 |
| Great Stanmore | 44 |
| Harrow-on-the-Hill | 170 |
| Harrow Weald | 80 |
| Wembley | 251 |
| Wealdstone | 218 |
| Total | 3,159 |

The allotment of an accident case to any one of the preceding parishes is governed by the following rules :—

1. A person admitted, who is normally resident within the County, becomes a case for the parish of residence, irrespective of the district in which the accident occurs.
2. A person admitted, not being normally resident within the County, becomes a case for the parish in which the accident actually occurs.
3. A person admitted from and normally resident outside the County area becomes a case for the parish of Hendon, being the parish in which the Redhill Hospital is situate.

III.—Table Showing the Results of Treatment or the Termination.

| | | | | |
|---|---|---|---|---|
| Cured .. .. .. .. | 2,258 | | | |
| Greatly relieved .. .. | 293 | | | |
| Relieved .. .. .. | 207 | Relieved .. | 2,803 = 88·7 | per cent. |
| Slightly relieved .. .. | 45 | | | |
| In *statu quo* .. .. .. | 92 | | | |
| Worse .. .. .. .. | 3 | Unrelieved .. | 95 = 3·0 | ,, |
| Died .. .. .. .. | 261 | Died .. .. | 261 = 8·3 | ,, |
| Total .. .. | 3,159 | | 100 | ,, |

| | |
|---|---|
| Patients for whom hospital treatment was indicated .. .. | 2,981 |
| Patients for whom infirmary treatment was indicated .. .. | 178 |
| Total .. .. .. .. .. .. .. | 3,159 |

Of the total dealt with, infirm patients constituted 5·6 per cent.

N.B.—Patients in the advanced stages of disease, proved pulmonary tuberculosis cases, senile and bedridden patients, patients on re-admission for the same disease or disability, and infants admitted with mother are placed in the infirm category.

*Deaths.*

| Ages. | Male. | Female. | Total. |
|---|---|---|---|
| Under 1 .. .. .. .. | 21 | 13 | 34 |
| 1–5 .. .. .. .. | 12 | 7 | 19 |
| 5–10 .. .. .. .. | 5 | 4 | 9 |
| 10–15 .. .. .. .. | 6 | 2 | 8 |
| 15–20 .. .. .. .. | 7 | 2 | 9 |
| 20–30 .. .. .. .. | 13 | 12 | 25 |
| 30–40 .. .. .. .. | 11 | 14 | 25 |
| 40–50 .. .. .. .. | 15 | 9 | 24 |
| 50–60 .. .. .. .. | 17 | 18 | 35 |
| 60–70 .. .. .. .. | 20 | 15 | 35 |
| 70–80 .. .. .. .. | 19 | 11 | 30 |
| Over 80 .. .. .. .. | 5 | 3 | 8 |
| Totals .. .. .. | 151 | 110 | 261 |

| | | |
|---|---|---|
| Deaths within 24 hours of admission | 82* | |
| ,, ,, 48 ,, ,, | 20 | |
| ,, ,, 72 ,, ,, | 14 | |
| | —— | 116 |
| All other deaths | | 145 |
| Total | | 261 |

31 per cent. of all deaths occurred within 24 hours of admission.

| | |
|---|---|
| * Injuries | 23 |
| Terminal stage— | |
| Acute diseases | 28 |
| Chronic diseases | 8 |
| Other deaths within 24 hours | 23 |
| | 82 |

For causes of death see Table VIIa.

IV.—Table showing the Behaviour of Patients and their Manner of Discharge.

| | | |
|---|---|---|
| Patients whose behaviour was normal | | 3,090 |
| ,, ,, ,, abnormal | | 69* |
| Total | | 3,159 |

| | |
|---|---|
| * Malingerer | 1 |
| Troublesome | 20 |
| Mentally deranged | 31 |
| Suicidal | 12 |
| Alcoholic | 5 |
| | 69 |

| | |
|---|---|
| Discharged in the normal manner | 3,047 |
| ,, at own request, with medical superintendent's approval | 60 |
| ,, at own request, against medical superintendent's advice | 50 |
| Ejected | 2 |
| Total | 3,159 |

V.—Table showing whither the 3,159 Patients were Discharged.

| | |
|---|---|
| Home | 2,670 |
| To Middlesex County Council's institution or home | 162 |
| To out-patient department | — |
| To convalescent home | 23 |
| To Middlesex County Council's general hospital | 3 |
| To other authorities' hospital or institution | 8 |
| To infectious diseases hospital | 10 |
| To mental hospital | 2 |
| To sanatorium | 8 |
| To voluntary hospital | 12 |
| Died | 261 |
| Total | 3,159 |

VI.—Averages for the Year.

| | |
|---|---|
| Beds—average daily complement | 207 |
| Beds—average daily number available | 205 |
| Beds—average daily number occupied | 177 |
| Patients per occupied bed—average number | 17·8 |
| Nursing staff—average daily strength | 61·6 |
| Occupied beds per nurse—average number | 2·87 |
| Admissions—average daily number | 8·7 |
| Dangerously ill—average daily percentage | 7·9 |
| Stay—average length in days per patient | 20·5 |

Maximum number of beds occupied = 210 on 28th August.
Minimum number of beds occupied = 155 on 3rd August.

VII.—Classification of the Diseases for which the 3,159 Patients were Primarily Treated.

| Sex: / Termination | Male. | | | Female. | | | Totals. |
|---|---|---|---|---|---|---|---|
| | Relieved. | Unrelieved. | Died. | Relieved. | Unrelieved. | Died. | |
| Births | 199 | — | 6 | 181 | — | 5 | 391 |
| Infants with mother | 8 | — | — | 10 | — | — | 18 |
| No disease | 3 | — | — | 1 | — | — | 4 |
| Diseases caused by infection* | 115 | 6 | 40 | 99 | 11 | 26 | 297 |
| Diseases of the— | | | | | | | |
| Nervous system | 13 | 4 | 1 | 12 | 10 | — | 40 |
| Eye | — | — | — | — | — | — | — |
| Ear | 20 | — | 2 | 19 | — | 3 | 44 |
| Nose and throat† | 155 | 1 | 2 | 199 | — | 2 | 359 |
| Circulatory system | 24 | 7 | 21 | 32 | 3 | 10 | 97 |
| Blood, spleen and lymphatic system | 18 | 1 | — | 13 | — | — | 32 |
| Endocrine glands | 2 | — | — | 4 | — | 1 | 7 |
| Breast | — | — | — | 4 | — | — | 4 |
| Respiratory system | 38 | 1 | 4 | 35 | — | 6 | 84 |
| Teeth and gums | 13 | — | 2 | 12 | 1 | — | 28 |
| Digestive system | 131 | — | 26 | 111 | 3 | 13 | 284 |
| Diseases due to disorder of— | | | | | | | |
| Nutrition and metabolism | 10 | — | 2 | 5 | 3 | 4 | 24 |
| Diseases of the generative system | 11 | 1 | 3 | 32 | — | 1 | 48 |
| Normal and abnormal— Pregnancy, Parturition, Puerperium | — | — | — | 546 | — | 10 | 556 |
| Diseases of the— | | | | | | | |
| Organs of locomotion | 20 | 1 | — | 16 | 2 | 2 | 41 |
| Areolar tissue and skin | 35 | 1 | — | 23 | — | — | 59 |
| Urinary organs | 20 | 1 | 1 | 32 | 1 | 4 | 59 |
| Injuries | 364 | — | 31 | 152 | 3 | 9 | 559 |
| Tumours and cysts | 15 | 15 | 8 | 22 | 13 | 10 | 83 |
| Malformations | 16 | 2 | 1 | 1 | 2 | 3 | 25 |
| Poisonings | 3 | 1 | 1 | 8 | — | 1 | 14 |
| Parasites | — | — | — | 2 | — | — | 2 |
| Totals | 1,233 | 42 | 151 | 1,571 | 52 | 110 | |
| Grand Totals | 1,426 | | | 1,733 | | | 3,159 |

* All generally notifiable diseases, together with measles, German measles, chickenpox, whooping cough and mumps; also influenza and its complications, tuberculosis, venereal disease and rheumatic fever, in all its manifestations, together with rheumatic carditis, acute, subacute and chronic.

† Includes diseases of tonsils, naso-pharynx, pharynx and larynx.

VIIA.

| Nature of Disease. | Medical | | | Surgical and Obstetrical. | | | Total. |
|---|---|---|---|---|---|---|---|
| | Relieved. | Unrelieved. | Died. | Relieved. | Unrelieved. | Died. | |
| Births .. .. .. .. | — | — | — | 380 | — | 11 | 391 |
| Infants with mother .. .. | 18 | — | — | — | — | — | 18 |
| No disease .. .. .. .. | 4 | — | — | — | — | — | 4 |
| Diseases caused by infection* .. | 210 | 17 | 66 | 4 | — | — | 297 |
| Diseases of the— | | | | | | | |
| Nervous system .. .. | 24 | 14 | 1 | 1 | — | — | 40 |
| Eye .. .. .. .. | — | — | — | — | — | — | — |
| Ear .. .. .. .. | — | — | — | 39 | — | 5 | 44 |
| Nose and throat† .. .. | — | — | — | 354 | 1 | 4 | 359 |
| Circulatory system .. .. | 41 | 10 | 31 | 15 | — | — | 97 |
| Blood, spleen and lymphatic system.. .. .. .. | 8 | 1 | — | 23 | — | — | 32 |
| Endocrine glands .. .. | 1 | — | 1 | 5 | — | — | 7 |
| Breast .. .. .. .. | — | — | — | 4 | — | — | 4 |
| Respiratory system .. .. | 73 | 1 | 10 | — | — | — | 84 |
| Teeth and gums.. .. .. | — | — | — | 25 | 1 | 2 | 28 |
| Digestive system .. .. | 109 | 3 | 9 | 133 | — | 30 | 284 |
| Diseases due to disorder of— | | | | | | | |
| Nutrition and metabolism .. | 15 | 3 | 6 | — | — | — | 24 |
| Diseases of the generative system | — | — | — | 43 | 1 | 4 | 48 |
| Normal and abnormal— | | | | | | | |
| Pregnancy, parturition and puerperium .. .. .. | — | — | — | 546 | — | 10 | 556 |
| Diseases of the— | | | | | | | |
| Organs of locomotion .. .. | 23 | 3 | — | 13 | — | 2 | 41 |
| Areolar tissue and skin .. | 14 | — | — | 44 | 1 | — | 59 |
| Urinary organs .. .. .. | 35 | — | 4 | 17 | 2 | 1 | 59 |
| Injuries .. .. .. .. | — | — | — | 516 | 3 | 40 | 559 |
| Tumours and cysts .. .. | — | — | — | 37 | 28 | 18 | 83 |
| Malformations .. .. .. | — | — | — | 17 | 4 | 4 | 25 |
| Poisonings .. .. .. .. | 11 | 1 | 2 | — | — | — | 14 |
| Parasites .. .. .. .. | 2 | — | — | — | — | — | 2 |
| Totals .. .. | 588 | 53 | 130 | 2,216 | 41 | 131 | |
| | | | | | | | 3,159 |
| Grand Totals .. | | 771 | | | 2,388 | | |

* All generally notifiable diseases, together with measles, German measles, chickenpox, whooping cough and mumps; also influenza and its complications, tuberculosis, venereal disease and rheumatic fever, in all its manifestations, together with rheumatic carditis, acute, subacute and chronic.

† Includes diseases of tonsils, naso-pharynx, pharynx and larynx.

*Diseases and Conditions treated to a Conclusion.*

(Groups arranged in order of frequency.)

| | *Treated.* | | *Died.* |
|---|---|---|---|
| Injuries, general and local .. .. .. .. | 559 | | 40 |
| Pregnancy, parturition, puerperium .. .. .. | 556 | | 10 |
| Diseases of ear, nose and throat .. .. .. .. | 403 | | 9 |
| Births .. .. .. .. .. .. .. | 391 | | 11 |
| Diseases caused by infection .. .. .. .. | 297 | | 66 |
| Diseases of digestive system .. .. .. .. | 284 | | 39 |
| | — | 2,490 | |
| Diseases of circulatory system .. .. .. .. | 97 | | 31 |
| ,, respiratory system .. .. .. .. | 84 | | 10 |
| Tumours and cysts.. .. .. .. .. .. | 83 | | 18 |
| Diseases of areolar tissue, skin .. .. .. .. | 59 | | — |
| ,, urinary organs .. .. .. .. | 59 | | 5 |
| ,, generative organs .. .. .. .. | 48 | | 4 |
| ,, organs of locomotion .. .. .. | 41 | | 2 |
| ,, nervous systsm .. .. .. .. | 40 | | 1 |
| | — | 511 | |
| Diseases of remaining eleven groups .. .. .. | | 158 | 15 |
| | | — | — |
| Totals .. .. .. .. | | 3,159 | 261 |
| | | — | — |

More patients were treated for injury than for any other condition. The proportion is one in seven.

Of the numbers treated to a conclusion, 268 had fractures or dislocations. At no time were there less than 18 fracture cases in hospital. For a short period during the year 34 beds were occupied by fractures.

Few general hospitals in this country are called upon to provide beds for such a relatively large number of injuries to bones and joints. By reason of their helplessness these cases require, for long periods, constant attention on the part of the nursing staff.

The results obtained by treatment compare most favourably with those of the special orthopædic hospitals.

The following analyses are of interest :—

*Analysis of Injuries treated to a Conclusion during the Year and the Results of Treatment.*

| — | Relieved. | Unrelieved. | Died. | Total. |
|---|---|---|---|---|
| Shock or other general injury .. .. | 24 | — | — | 24 |
| Cerebral concussion .. .. .. .. | 74 | — | — | 74 |
| Injuries to soft parts .. .. .. .. | 182 | 1 | 10 | 193 |
| Fractures and dislocations .. .. .. | 236 | 2 | 30 | 268 |
| Totals .. .. .. .. | 516 | 3 | 40 | 559 |

There were very few cases of shock or cerebral concussion without additional and superficial injuries.

255 patients injured in street accidents are included in the above figures.

*Analysis of Fractures and Dislocations treated to a Conclusion during the Year, together with their Nature and Results of Treatment.*

| — | Nature. | | Result. | | | | | Total. |
|---|---|---|---|---|---|---|---|---|
| | Simple. | Compound. | Very Good. | Good. | Medium. | Poor. | Died. | |
| Skull, vault | 10 | 1 | 6 | — | 1 | — | 4 | 11 |
| ,, base | 4 | 10 | 6 | 2 | 1 | — | 5 | 14 |
| ,, bones of face | 5 | 2 | 3 | 3 | 1 | — | — | 7 |
| Nasal bones, turbinates and septum | — | 4 | 4 | — | — | — | — | 4 |
| Vertebræ | 1 | — | — | 1 | — | — | — | 1 |
| Ribs | 10 | — | 8 | 1 | — | — | 1 | 10 |
| Clavicle | 6 | — | 4 | — | 2 | — | — | 6 |
| Scapula | 1 | — | 1 | — | — | — | — | 1 |
| Humerus | 8 | 4 | 3 | 5 | 3 | — | 1 | 12 |
| Radius or ulna, or both | 12 | 2 | 10 | 2 | 1 | 1 | — | 14 |
| Carpus, metacarpus or phalanges | 6 | 7 | 3 | 2 | 8 | — | — | 13 |
| Pelvis | 8 | — | 8 | — | — | — | — | 8 |
| Femur, neck or great trochanter | 7 | — | 1 | 1 | 2 | 2 | 1 | 7 |
| ,, shaft or lower end | 17 | 1 | 12 | 1 | 2 | 1 | 2 | 18 |
| Patella | 3 | — | 3 | — | — | — | — | 3 |
| Tibia | 16 | 1 | 16 | 1 | — | — | — | 17 |
| Fibula | 7 | — | 7 | — | — | — | — | 7 |
| Tibia and fibula, simple | 29 | — | 23 | 6 | — | — | — | 29 |
| ,, ,, compound | — | 16 | 9 | 3 | 2 | — | 2 | 16 |
| Tarsus, metatarsus or phalanges | 3 | 1 | 1 | 2 | 1 | — | — | 4 |
| Multiple bony injuries, simple* | 27 | — | 12 | 9 | 1 | — | 5 | 27 |
| ,, ,, ,, compound† | — | 16 | 2 | 4 | 1 | — | 9 | 16 |
| Fracture-dislocations, various | 11 | 1 | 8 | 2 | — | 2 | — | 12 |
| Dislocations, various | 3 | 2 | 3 | — | 2 | — | — | 5 |
| Separated epiphyses | 6 | — | 2 | 4 | — | — | — | 6 |
| Totals | 200 | 68 | 155 | 49 | 28 | 6 | 30 | 268 |

* Multiple fractures of the vertebral column, hand and foot, and cases of fractured ribs, tibia with fibula, and radius with ulna are not included in this group unless associated with one or more fractures or dislocations elsewhere. Multiple fractures of the bones of the skull, face and nose are not classified as multiple. These are entered under that fracture of the skull which is the more severe.

† One or more injuries being compound, not necessarily all.

| | |
|---|---|
| Male fracture cases | 198 |
| Female fracture cases | 70 |
| Total | 268 |

25 per cent. of the fractures treated were compound.

*Special Methods of Treatment.*

| | |
|---|---|
| By transfixion-extension | 16 |
| ,, open operation | 17 |
| ,, plaster of Paris | 25 |
| ,, amputation | 12 |

Manipulations under general anæsthesia (additional to above), 52.
3 patients had amputation through the femur; 2 died.
9 patients had amputation of fingers or toes; none died.
With few exceptions plasters were applied on the Hawley table.

*Results of Treatment.*

| | 1930. | 1929. |
|---|---|---|
| Very good .. .. .. | 155 = 58 per cent. | 105 = 55 per cent. |
| Good .. .. .. .. | 49 = 18 „ | 43 = 23 „ |
| Medium or poor .. .. | 34 = 13 „ | 25 = 13 „ |
| Died .. .. .. .. | 30 = 11 „ | 17 = 9 „ |
| Totals .. .. | 268 | 190 |

N.B.—The result of treatment is classified as "very good" only when the three following conditions are all fulfilled :—

(1) Little or no depreciation of function.

(2) Anatomical alignment of fragments.

(3) Shortening, if present, not exceeding half an inch.

The result of a fracture successfully treated by amputation (minor or major) is classified as medium.

Of 34 patients whose results were medium or poor, 10 had amputations, 2 went out against advice, 1 was certified insane and 6 others were aged from 67 to 95.

As in previous years the majority of deaths results from multiple bony injuries and from fractures of skull.

## VIII.—The Work of the Special Departments.

| | | | |
|---|---|---|---|
| Surgical .. .. .. | Major operations .. .. .. .. | | 576 |
| | Minor operations .. .. .. .. | 1,342 | |
| | | | 1,918 |
| Anæsthetics .. .. | General .. .. .. .. .. | 1,159 | |
| | Local .. .. .. .. .. .. | 309 | |
| | Spinal .. .. .. .. .. .. | 25 | |
| | | | 1,493 |
| Dental .. .. .. | Patients .. .. .. .. .. | | 247 |
| | Treatments .. .. .. .. .. | | 582 |
| Radiological .. .. | Patients investigated .. .. .. | | 850 |
| | Investigations .. .. .. .. | | 1,347 |
| Massage .. .. | Patients treated to a conclusion .. .. | | 306 |
| | Treatments .. .. .. .. .. | | 4,989 |
| Radiant Heat .. .. | Patients treated to a conclusion .. .. | | 33 |
| | Treatments .. .. .. .. .. | | 780 |
| Maternity .. .. | Women examined at ante-natal clinic .. | | 463 |
| | Attendances at ante-natal clinic .. .. | | 1,671 |
| | Births .. .. .. .. .. .. | | 424 |
| | Obstetric operations .. .. .. .. | | 48* |
| Pathological .. .. | Investigations .. .. .. .. | | 1,526 |
| Ear, Nose and Throat | Operations .. .. .. .. .. | | 490* |
| Therapeutic and Diagnostic .. | Special procedures .. .. .. .. | | 555 |
| Casualty .. .. | Cases treated but not admitted .. .. | | 611 |

Note.—Included in the above figures are the minor operations performed on, and the treatments given to. casualties. With the exception of the ante-natal clinic, no out-patient department at present exists.

* These operations are included in the numbers of major and minor operations and are not additional.

## 1. Department of Surgery.

*Analysis of operations performed during the Year.*

| | Major. | Minor. | Total. |
|---|---|---|---|
| *General—* | | | |
| On skin and superficial structures | 4 | 487 | 491 |
| On arteries, veins and lymphatics | 1 | 6 | 7 |
| On nerves | 1 | — | 1 |
| On bones and joints | 68 | 222 | 290 |
| On muscles, tendons, bursæ and fasciæ | — | 13 | 13 |
| Amputations | 5 | 7 | 12 |
| On skull, brain and spine | 2 | — | 2 |
| On face | — | 1 | 1 |
| On eye | — | 29 | 29 |
| On mouth, pharynx and œsophagus | — | 1 | 1 |
| On thyroid, accessory glands and neck | 6 | 13 | 19 |
| On breast | 2 | 6 | 8 |
| On thorax and contents | 7 | — | 7 |
| On abdominal wall and cavity | 49 | 2 | 51 |
| On stomach | 25 | — | 25 |
| On intestine, rectum and anus | 109 | 7 | 116 |
| On liver, gall bladder, pancreas and spleen | 6 | — | 6 |
| On kidney, ureter, bladder and urethra | 66 | 58 | 124 |
| On male generative organs | 13 | 29 | 42 |
| On female generative organs | 72 | 16 | 88 |
| Unclassified | — | 9 | 9 |
| | 436 | 906 | 1,342 |
| *Special Surgical Departments—* | | | |
| Obstetric | 17 | 69 | 86 |
| On ear, nose and throat | 123 | 367 | 490 |
| Grand Totals | 576 | 1,342 | 1,918 |

1,039 operations took place in the main theatre. A detailed list of the operations performed during the year in the theatres and wards would serve no useful purpose Below are given, under anatomical headings, the names and numbers of the operations most frequently performed.

*On Skin and Superficial Structures—*

These were incisions for abscesses, cellulitis, boils, carbuncles and whitlows, removals of foreign bodies from limbs and suturing of wounds. 278 of the 491 were done in the casualty department.

*On Bones and Joints—*

With few exceptions these were in connection with fractures and dislocations. Some have been detailed under analysis of fractures. Transfixions by pin and wire, and manipulations of fragments, with and without general anæsthesia, constitute the majority of the minor operations in this section. When the period of anæsthesia exceeded half an hour the operation is classified as major.

*On Abdominal Wall and Cavity—*

| | |
|---|---|
| Herniotomy for inguinal hernia or femoral hernia | 25 |
| Herniotomy for ventral hernia or umbilical hernia | 4 |
| Laparotomy—exploratory | 7 |
| Laparotomy—for peritonitis | 6 |

*On Stomach—*

| | |
|---|---|
| Suture of perforated peptic ulcer | 15 |
| Gastro-enterostomy | 6 |
| Gastrectomy | 2 |

*On Intestine, Rectum, Anus—*

| | |
|---|---|
| For appendicitis | 85 |
| For intestinal obstruction, chronic | 7 |
| For intestinal obstruction, acute | 5 |
| Cæcostomy | 3 |
| Various (via abdomen) | 4 |
| Sigmoidoscopy (minor operation) | 8 |
| For hæmorrhoids | 7 |

*On Kidney, Ureter, Bladder and Urethra—*

| | |
|---|---|
| Cystoscopy (minor operation) | 55 |
| Cystoscopy and ureteric catheterisation | 32 |
| Supra-pubic cystostomy | 19 |
| Diathermy of vesical neoplasm | 12 |

*On Male Generative Organs—*

| | |
|---|---|
| Circumcision (minor operation) | 23 |
| Supra-pubic prostatectomy | 13 |

*On Female Generative Organs—*

| | |
|---|---|
| Curettage for abortion | 40 |
| Uterine plugging | 14 |
| On ovary and/or tube | 10 |
| Hysterectomy | 6 |
| Colpo-perineorrhaphy | 4 |

*Obstetric—*

| | |
|---|---|
| Repair of perineum | 53* |
| Application of forceps | 12 |
| Version | 8 |
| Cæsarian section | 4 |
| For adherent placenta | 4 |

*Included in these are the suturings of very minor tears and repairs of lacerations sustained before admission.

Laparotomy was performed 174 times.

N.B.—Herniotomies, other than those for ventral herniæ, and open operations on the kidney and bladder, of which last there were 47, are not included in the above number of laparotomies.

Eighty-five laparotomies were for appendicitis.

*Analysis of Operations for Appendicitis Performed on Patients treated to a Conclusion.*

| | Males. | | | Females. | | | Totals. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Relieved. | Died. | Total. | Relieved. | Died. | Total. | Relieved. | Died. | Total. |
| Acute* | 18 | — | 18 | 13 | — | 13 | 31 | — | 31 |
| Acute with local peritonitis | 5 | 1 | 6 | 6 | — | 6 | 11 | 1 | 12 |
| Acute with local abscess | 10 | — | 10 | 8 | — | 8 | 18 | — | 18 |
| Acute with general peritonitis | 3 | 3 | 6 | 4 | 1 | 5 | 7 | 4 | 11 |
| Subacute or chronic | 2 | — | 2 | 4 | — | 4 | 6 | — | 6 |
| Totals | 38 | 4 | 42 | 35 | 1 | 36 | 73 | 5 | 78 |

Operative mortality for acute cases = 6·9 per cent.

* Appendices proved by section to be acutely inflamed.

## 2. Department of Anæsthetics.

*Analysis of Anæsthetics administered during the Year.*

| | | | |
|---|---|---|---|
| *General—* | | | |
| | Anæsthesia by chloroform, ether or mixture | 870 | |
| | ,, nitrous oxide | 60 | |
| | ,, nitrous oxide and oxygen | 197 | |
| | ,, nitrous oxide, oxygen and ether | 31 | |
| | ,, rectal ether | 1 | |
| | | —— | 1,159 |
| *Local—* | | | |
| | Anæsthesia by application to mucous membrane | 53 | |
| | ,, freezing with ethyl chloride | 30 | |
| | ,, infiltration | 140 | |
| | Regional anæsthesia by infiltration and nerve block | 86 | |
| | | —— | 309 |
| *Spinal—* | | | |
| | Anæsthesia by intrathecal injection | | 25 |
| | Total | | 1,493 |

## 3. Dental Department.

*Analysis of Treatments given during the Year.*

| | | | |
|---|---|---|---|
| | Patients treated | 247 | |
| | Extractions—anæsthesia by chloroform, ether or mixture | 38 | |
| | ,, ,, nitrous oxide | 142 | |
| | ,, ,, local infiltration | 80 | |
| | ,, ,, nerve block | 45 | |
| | ,, without anæsthesia | 11 | |
| | | —— | 316 |
| | Osteotomy for buried roots | | 4 |
| | Splinting fractured maxilla or mandible | | 14 |
| | Gum treatment and scaling | | 18 |
| | Fillings | | 57 |
| | Miscellaneous procedures | | 173 |
| | Total | | 582 |
| | Total number of teeth extracted | | 1,565 |

## 4. Radiological Department.

| | | |
|---|---|---|
| In-patients investigated | 661 | |
| Out-patients investigated | 189 | |
| Total patients investigated | 850 | |

*Analysis of Investigations made during the Year.*

| | Appearances. | | |
|---|---|---|---|
| | Normal. | Abnormal. | Total. |
| Skull and contents* | 36 | 26 | 62 |
| Lungs and mediastinum | 38 | 89 | 127 |
| Pleuræ and pleural conditions | — | 43 | 43 |
| Heart and aorta | 2 | 13 | 15 |
| Œsophagus, stomach and intestines | 52 | 57 | 109 |
| Biliary passages | 14 | 8 | 22 |
| Urinary system | 34 | 35 | 69 |
| Generative system | 6 | 14 | 20 |
| Bones and joints for injury | 150 | 544 | 694 |
| Bones and joints for disease or deformity | 41 | 64 | 105 |
| Miscellaneous | 6 | 19 | 25 |
| Teeth | 12 | 44 | 56 |
| Totals | 391 | 956 | 1,347 |

* Fractures, diseases and deformities of skull are included in this section.

*Special Methods of Investigation.*

| | |
|---|---|
| Barium meals | 89 |
| Barium enemata | 11 |
| Cholecystograms | 17 |
| Lipiodol injections | 5 |
| Pyelograms | 22 |
| Total | 144 |

| | |
|---|---|
| Number of radiograms taken | 2,763 |
| Average number of radiograms per patient | 3·25 |

For the past few years the annual reports of most general hospitals have shown that, in each succeeding year, X-Ray investigations have been made in a larger percentage of the total number of patients treated. Improved apparatus, new methods of investigation and the wider knowledge and greater skill of those working in the speciality, have combined to make diagnosis by radiography more certain. It is for this reason that an ever-increasing number of patients is sent to the radiologist, not only for confirmation of a diagnosis, but also in order to exclude the presence of certain morbid conditions. A report stating that the appearance of a certain organ or part is normal is often of the greatest value. Nearly 50 per cent. of the investigations, detailed in the above analysis and showing normal appearances, were made to prove the absence of fracture.

## 5. Massage Department.

| | |
|---|---|
| Admitted for treatment | 330 |
| Treated to a conclusion | 306 |
| Remaining under treatment | 24 |

| | | | |
|---|---|---|---|
| In-patients | 315 | Treatments | 4,905 |
| Out-patients | 15 | Treatments | 84 |
| Total | 330 | Total | 4,989 |

61 of the 315 in-patients continued to attend after discharge from the wards, and received 521 of the 4,989 treatments given.

| | |
|---|---|
| Average number of treatments per patient admitted | 15 |

| | |
|---|---|
| Medical cases admitted | 79 = 24 per cent. |
| Surgical cases admitted | 251 = 76 „ |
| Total | 330 = 100 „ |

| *Result of Treatment*— | | Per cent. |
|---|---|---|
| Good | 255 | 83 |
| Fair | 42 | 14 |
| Not improved | 9 | 3 |
| Treated to a conclusion | 306 | 100 |

## 6. Radiant Heat Department.

| | |
|---|---|
| Patients treated | 33 |
| Treatments given | 780 |
| Average number of treatments per patient | 23·6 |

The result of treatment was good in every case save one, which was not improved. Patients receiving radiant heat for burns and scalds are not included in the above figures.

***Burns and Scalds—***

The combined tannic acid and radiant heat treatment of these conditions has been applied with success.

| | Patients. | Died. | Mortality. |
|---|---|---|---|
| Treated by this method .. .. .. | 32 | 4* | 12·5 |
| Treated by other methods .. .. .. | 6 | 1 | 16·7 |
| Totals .. .. .. | 38 | 5 | 13·1 |

* 3 females, aged 82, 74 and 2 ; 1 male, aged 48.

## 7. Maternity Department.

### *Ante-Natal Clinic.*

| | |
|---|---|
| Ante-natal sessions held .. .. .. .. .. .. .. | 49 |
| Expectant mothers examined .. .. .. .. .. .. | 463 |
| Total attendances .. .. .. .. .. .. .. .. | 1,671 |
| Average number seen per session .. .. .. .. .. | 34 |
| Average number of attendances per expectant mother .. .. | 3·6 |
| Sent for dental treatment .. .. .. .. .. .. .. | 40 |
| Sent for pathological examination .. .. .. .. .. | 26 |
| Sent for radiological examination .. .. .. .. .. | 19 |

*Analysis of the 420 Deliveries which took place during the Year.*

| | | | | Per cent. |
|---|---|---|---|---|
| Mother Admitted .. | Via ante-natal clinic .. .. .. | 353 | .. | 84 |
| | Not via ante-natal clinic .. .. | 67 | .. | 16 |
| | Total .. .. .. | 420 | .. | 100 |
| Civil State .. .. | Married .. .. .. .. .. | 377 | .. | 90 |
| | Unmarried .. .. .. .. | 43 | .. | 10 |
| | Total .. .. .. | 420 | .. | 100 |
| Parous State .. | Primipara .. .. .. .. | 214 | .. | 51 |
| | Multipara .. .. .. .. | 206 | .. | 49 |
| | Total .. .. .. .. | 420 | .. | 100 |
| Presentation .. | Born before admission .. .. | 4 | | |
| | Vertex—occipito-anterior .. .. | 391 | | |
| | Vertex—occipito-posterior .. .. | 11 | | |
| | Breech—uncomplicated .. .. | 10 | | |
| | Breech—complicated .. .. .. | 4 | | |
| | Face and brow .. .. .. .. | 4 | | |
| | Transverse .. .. .. .. | — | | |
| | Total .. .. .. .. | 424 | | |

There were 4 sets of twins. In 2 sets the presentations were vertex (occipito-anterior) and in 2 sets one twin was vertex (occipito-anterior) and the other breech.

| | No. | Deaths. | | |
|---|---|---|---|---|
| | | Maternal. | Fœtal. | Neo-Natal. |
| *Method of Delivery—* | | | | |
| Natural forces .. .. .. | 397 | 3 | 17 | 8 |
| Natural forces after induction .. | 9 | — | — | — |
| Forceps .. .. .. .. | 12 | 1 | 2 | 3 |
| Forceps after induction .. .. | — | — | — | — |
| Version .. .. .. .. | — | — | — | — |
| Traction-extension to scalp .. | 2 | — | 2 | — |
| Cæsarean section .. .. .. | 3 | 1 | 1 | — |
| Embryotomy .. .. .. | 1 | — | 1 | — |
| Total .. .. | 424 | 5 | 23 | 11 |

A woman (not via ante-natal clinic) who died undelivered is not included in the above figures.

| | |
|---|---|
| Medicinal inductions | 8 |
| Medicinal inductions followed by bougies | 1 |

Traction-extension, by weight to volsellum forceps, used in 2 cases of placenta prævia.

| | Cases. |
|---|---|
| Delivered by midwives | 406 |
| Delivered by doctors | 18 |
| Midwife sought medical assistance in | 60 |

| *Labour*— | | Per cent. |
|---|---|---|
| Normal | 380 | 90·5 |
| Abnormal | 36 | 8·5 |
| Multiple | 4 | 1·0 |
| Total | 420 | 100 |

| *Birth*— | | |
|---|---|---|
| Full time | 375 | 88·4 |
| Premature | 26 | 6·1 |
| Still-born | 23 | 5·5 |
| Total | 424 | 100 |

| | |
|---|---|
| Average weight at birth—ante-natal clinic infants | 7 lbs. 4 ozs. |
| Average weight at birth—other infants | 6 lbs. 14 ozs. |
| Infants not entirely breast-fed | 7 |
| Anæsthetics given for obstetric purposes | 15 |
| Average length in days of lying-in period | 14 |

N.B.—The tables which follow deal with the maternity patients admitted, and infants born during the year.

*Maternal Morbidity.*

All fatal cases and all cases in which a temperature of 100·4 F. or more is sustained for a period of 24 hours or recurs during that period. (Ministry of Health Standard).

| | Ante-Natal Clinic. | Non-Ante-Natal Clinic. | Total. |
|---|---|---|---|
| Deliveries and deaths undelivered | 353 | 68 | 421 |
| Pyrexial cases | 6 | 2 | 8 |
| Deaths | 3 | 3 | 6 |
| Pyrexial cases and deaths | 9 | 5 | 14 |
| Morbidity per cent. | 2·55 | 7·35 | 3·32 |

*Pyrexial Cases.*

(Ministry of Health Standard.)

| Live Births. | Mode of Delivery. | Causation. | Number of Cases. | |
|---|---|---|---|---|
| | | | Ante-Natal Clinic. | Non-Ante-Natal Clinic. |
| 2 | Natural forces | Acute mastitis | 2 | — |
| 2 | Natural forces | Pyelitis | 2 | — |
| 1 | Natural forces | Toxæmia and constipation | 1 | — |
| Still-born (macerated) | Natural forces | Reaction (mitral stenosis) (abnormal labour) | 1 | — |
| 1 | Forceps | Sapræmia | — | 1 |
| Still-born | Craniotomy | Sapræmia | — | 1 |
| 6 | — | — | 6 | 2 |

Total pyrexial cases 8

*Maternal Deaths.*

| Live Births. | Mode of Delivery. | Maternal Complication. | Number of Cases. | |
|---|---|---|---|---|
| | | | Ante-Natal Clinic. | Non-Ante-Natal Clinic. |
| 1 | Natural forces .. | Puerperal septicæmia. Chronic rheumatic valvular disease of heart | 1 | — |
| 1 | Forceps .. .. | Puerperal septicæmia. Persistent occipito posterior adherent placenta | 1 | — |
| Stillborn | Cæsarean section | Ante-partum hæmorrhage, placenta prævia | 1 | — |
| 1 | Natural forces .. | Eclampsia .. .. .. .. .. | — | 1 |
| 1 | Natural forces .. | Acute yellow atrophy .. .. .. | — | 1 |
| — | Undelivered .. | Acute yellow atrophy .. .. .. | — | 1 |
| 4 | | | 3 | 3 |

Total maternal deaths .. .. .. 6

*Maternal mortality—*

Cases admitted—via ante-natal clinic .. .. .. ·85 per cent.
„ „ not via ante-natal clinic .. .. .. 4·41 „
Maternal mortality—all cases .. .. .. .. 1·43 per cent.

*Infant Mortality—*

| | | | |
|---|---|---|---|
| Infants—born and survived .. .. .. | 390 | .. | 91·9 per cent. |
| „ still-born .. .. .. .. | 23 | .. | 5·5 „ |
| „ born and died .. .. .. .. | 11 | .. | 2·6 „ |
| Total births .. .. .. | 424 | | 100 „ |

Infant mortality = 8 per cent. of all infants born (including still-births).
„ „ = 2·6 per cent. of all infants born alive.

*Still-births.*

Details of the 23 still-births.

| No. of Infants. | Method of Delivery. | Causation. | Mother. | | Infant. | |
|---|---|---|---|---|---|---|
| | | | Primipara. | Multipara. | Full Term. | Premature. |
| 14 | Natural forces .. | Toxæmia, accidental hæmorrhage | — | 1 | 1 | — |
| | | Placenta præævia .. | — | 2 | 2 | — |
| | | Toxæmia of pregnancy | 4 | 1 | — | 5 (M.) |
| | | „ „ | 2 | — | 2 (M.) | — |
| | | „ „ | 2 | — | 1 | 1 |
| | | Anencephaly .. | — | 1 | 1 | — |
| | | Syphilis .. .. | — | 1 | — | 1 (M.) |
| 2 | Natural forces after failed forceps before admission | Prolonged abnormal labour | 1 | — | 1 | — |
| | | Intra-cranial injury | 1 | — | 1 | — |
| 2 | Breech .. .. | Toxæmia of pregnancy | 1 | — | — | 1 (M.) |
| | | Prolapse cord .. | — | 1 | 1 | — |
| 2 | Forceps .. .. | Toxæmia of pregnancy | 1 | — | 1 | — |
| | | Placenta prævia .. | — | 1 | — | 1 |
| 1 | Forceps after cleidotomy | Post-maturity .. | — | 1 | Post-mat. | — |
| 1 | Cæsarean section | Placenta prævia .. | — | 1 | 1 | — |
| 1 | Embryotomy .. | Post-maturity .. | 1 | — | Post-mat. | — |
| 23 | | | 13 | 10 | 14 | 9 |

*Note.*—M. denotes macerated fœtus.

*Cause of Still-birth—*

| | | | |
|---|---|---|---|
| Maternal conditions | 13 | 56·5 per cent. | |
| Complications of labour | 6 | 26·0 | „ |
| Placental states | — | — | |
| Fœtal states | 4 | 17·5 | „ |
| Total still-births | 23 | 100 | „ |

*Neo-Natal Deaths.**

Details of the 11 neo-natal deaths.

| No. of Infants. | Method of Delivery. | Maternal Complications. | Cause of Death. | Age. |
|---|---|---|---|---|
| 1 | Natural forces | — | Prematurity | 8 days. |
| 1 | „ „ | ? Venereal disease | Prematurity | 8 hours. |
| 1 | „ „ | — | Prematurity | 16 days. |
| 1 | „ „ | — | Prematurity | 4 days. |
| 1 | „ „ | Quiescent pulmonary tuberculosis | Fœtal shock | 2 days. |
| 1 | Forceps after failed forceps before admission | — | Fœtal shock | 3 hours. |
| 1 | Forceps | — | Fœtal shock | 2 days. |
| 1 | Natural forces | Catarrhal jaundice | Prematurity | 1 hour. |
| 1 | Forceps | — | Tentorial laceration | 8 days. |
| 1 | Born before admission | — | Prematurity | 1 hour. |
| 1 | „ „ „ | — | Prematurity | 2 days. |
| 11 | | | | |

*Cause of Death—*

| | |
|---|---|
| Prematurity | 7 |
| Fœtal shock | 3 |
| Birth injury | 1 |
| Total neo-natal deaths | 11 |

*Analysis of Cases of Normal and Abnormal Pregnancy, Parturition and Puerperium treated to a Conclusion in Maternity and other Wards during the Year.*

| —— | Via Ante-natal Clinic. | Not via Ante-natal Clinic. | Total. |
|---|---|---|---|
| Pregnancy | — | 1 | 1 |
| Pregnancy and spurious labour pains | 10 | 3 | 13 |
| Toxæmia of pregnancy | 5 | 5 | 10 |
| Abnormal conditions of gravid uterus and ovum | — | 1 | 1 |
| Ectopic gestation | — | 3 | 3 |
| Pregnancy—placenta prævia | — | — | — |
| „ accidental hæmorrhage—non-toxæmic | 1 | — | 1 |
| Pregnancy and concomitant disease | 6 | 20 | 26 |
| Carried forward | 22 | 33 | 55 |

* Deaths within 4 weeks of birth.

| —— | Via Ante-natal Clinic. | Not via Ante-natal Clinic. | Total. |
|---|---|---|---|
| Brought forward .. .. .. .. | 22 | 33 | 55 |
| Abortion—threatened .. .. .. .. .. .. | 1 | 5 | 6 |
| ,, complete .. .. .. .. .. .. | — | 14 | 14 |
| ,, incomplete .. .. .. .. .. .. | — | 48 | 48 |
| ,, missed .. .. .. .. .. .. | — | — | — |
| ,, with local infection .. .. .. .. | — | 3 | 3 |
| ,, with local pelvic infection .. .. .. | — | 1 | 1 |
| ,, with general peritonitis .. .. .. .. | — | 1 | 1 |
| Labour—normal .. .. .. .. .. .. | 294 | 42 | 336 |
| ,, normal and toxæmia of pregnancy .. .. | 3 | 7 | 10 |
| ,, normal and concomitant disease* .. .. .. | 23 | 6 | 29 |
| ,, abnormal .. .. .. .. .. .. | 16 | 9 | 25 |
| ,, abnormal and toxæmia of pregnancy .. .. | 1 | 1 | 2 |
| ,, abnormal and concomitant disease* .. .. | 2 | — | 2 |
| ,, multiple .. .. .. .. .. .. | 3 | 2 | 5 |
| Puerperium—normal (admitted as such) .. .. .. | — | 8 | 8 |
| Puerperium and concomitant disease* (admitted as such) | — | 1 | 1 |
| Post-partum hæmorrhage (admitted as such) .. .. | — | 2 | 2 |
| Retained products of conception (admitted as such) .. | — | 1 | 1 |
| Puerperal infection, local (admitted as such) .. .. | 3 | 2 | 5 |
| ,, ,, local pelvic (admitted as such) .. | — | 2 | 2 |
| Totals .. .. .. .. | 368 | 188 | 556 |

* With few exceptions the concomitant disease was pyelitis.

| | Normal. | Abnormal. | Total. |
|---|---|---|---|
| Conditions .. .. .. .. | 358 .. | 198 .. | 556 |
| Labour .. .. .. .. | 375 .. | 29<br>Multiple.<br>5 | 409 |

386 women gave birth to 391 live children. 5 of these women died (3 ante-natal clinic, 2 non-ante-natal clinic).

Mortality per 100 women giving birth to live children = 1·29.

*Deaths.*

| | |
|---|---|
| A.—Due to pregnancy and child-bearing (abortion and ectopic gestation included) | 9 |
| B.—Due to disease concurrent with pregnancy and child-birth .. .. .. | 1 |
| **Total deaths** .. .. .. .. .. .. | 10 |

| A. | | B. | |
|---|---|---|---|
| Sepsis .. .. .. .. .. | 2 | Pneumonia and empyema .. .. .. | |
| Toxæmia .. .. .. .. .. | 3 | | |
| Ante-partum hæmorrhage .. .. | 1 | | |
| Post-partum hæmorrhage .. .. | 1 | | |
| Abortion .. .. .. .. .. | 2 | | |

The post-partum hæmorrhage case died 15 minutes after admission.

The pneumonia and empyema case died 3 months after delivery.

## 8. Pathological Department.

*Analysis of Investigations made during the Year.*

| | Made at | |
|---|---|---|
| | Redhill Hospital. | University College Hospital. |
| Throat swab—culture of K.L.B. | 5 | 14 |
| Pus—stained smear for organisms | 2 | — |
| Pus—culture for organisms | — | 25 |
| Smear—stained for gonococci | 10 | 6 |
| Swabbing—culture for gonococci | — | 3 |
| Blood—counts | 93 | 4 |
| ,, —agglutination for T.A.B.C. | — | 15 |
| ,, Wassermann reaction | — | 155 |
| ,, —chemical estimation | 141 | 15 |
| ,, —culture for organisms | — | 11 |
| ,, —grouping | 10 | — |
| Cerebral spinal fever—various investigations | 5 | 39 |
| Pleural fluid—various investigations | 3 | 22 |
| Urine—microscopy of centrifugal deposit | 274 | — |
| ,, bacteriological investigation | 10 | 11 |
| ,, chemical investigations | 77 | 14 |
| Fractional test meal | 22 | — |
| Sputum—stained smear for T.B. | 203 | — |
| Fæces—bacteriological investigation | 9 | 67 |
| Pathological material for section and report | — | 122 |
| Post-mortem examinations | 139 | — |
| Totals | 1,003 | 523 |
| Total investigations | 1,526 | |

*Post-mortem Examinations—*

These were made on the bodies of 53 per cent. of those dying in hospital. The percentages for 1929 and 1928 are 45 and 37 respectively.

The percentages at the various London voluntary hospitals range from 80 to 90.

## 9. Ear, Nose and Throat Department.

*Analysis of Operations Performed during the Year.*

| | |
|---|---|
| For aural furuncle, polypi, granulations | 11 |
| Paracentesis tympani | 18 |
| Mastoidectomy, incomplete | 10 |
| Mastoidectomy, complete | 5 |
| Mastoidectomy and drainage intra-cranial abscess | 1 |
| Mastoid curettages, plastics, dressings under general anæsthesia | 32 |
| On nose and sinuses—various | 16 |
| Enucleation of tonsils and adenoids | 293 |
| Dissection of tonsils | 91 |
| For quinsy | 7 |
| Removal of foreign body from œsophagus | 3 |
| Œsophagoscopy | 2 |
| Tracheotomy | 1 |
| Total | 490 |

The enucleation of tonsils and adenoids by blunt guillotine (Slnder method) is classified as a minor operation.

Death followed :—

1 mastoidectomy, incomplete, for acute mastoiditis with meningitis.
1 tracheotomy for scalds of throat.

## 10. Special Therapeutic and Diagnostic Procedures.

*Analysis of Special Treatments given during the Year.*

| | |
|---|---|
| Injection of protein or special drug | 126 |
| Injection of serum | 74 |
| Injection of vaccine | 8 |
| Subcutaneous injection of saline | 48 |
| Multiple punctures of œdematous legs | 5 |
| Autohæmotherapy | 20 |
| Blood transfusion (auto. and hetero.) | 9 |
| Intravènous injection of saline or drug | 74 |
| Venesection | 2 |
| Injection of varicose veins | 13 |
| Lumbar puncture | 55 |
| Inhalation therapy (Speiss-Drager) | 60 |
| Paracentesis of pleural cavity | 34 |
| Paracentesis of abdominal cavity | 3 |
| Gastric lavage | 24 |
| Total | 555 |
| Jennerian vaccination | 325 |

Note.—Hypodermic injections of drugs in common daily use, *e.g.*, morphia, atropine, strychnine, camphor, &c., are not included in this list.

### Comparative Tables for three years.

| | 1928. | 1929. | 1930. |
|---|---|---|---|
| Beds—complement at 31st December | 195 | 201 | 213 |
| ,, —average daily complement | 180 | 192 | 207 |
| ,, —average daily number available | — | — | 205 |
| ,, —average daily number occupied | 133 | 163 | 177 |
| Patients per occupied bed—average number per annum | 13·4 | 15·7 | 17·8 |
| Nursing staff—average daily strength | 40·75 | 53·5 | 61·6 |
| Occupied beds—average number per nurse | 3·25 | 3·0 | 2·87 |
| Admissions—average daily number | 5 | 7 | 8·7 |
| Admissions—percentage by medical superintendent | 51 | 46 | 57·5 |
| On danger list—average daily percentage | 7·5 | 9·4 | 7·9 |
| Length of stay—average in days per patient | 27·4 | 23·2 | 20·5 |
| Medical cases | 592 | 728 | 771 |
| Surgical cases—injuries | 364 | 472 | 559 |
| ,, ,, —ear, nose and throat | 203 | 295 | 403 |
| ,, ,, —other | 280 | 408 | 479 |
| Pregnancy, parturition, puerperium | 222 | 400 | 556 |
| Births (born and discharged) | 127 | 262 | 391 |
| Treated to a conclusion | 1,788 | 2,565 | 3,159 |
| Patients—relieved per cent. | 83·2 | 87·3 | 88·7 |
| ,, —unrelieved ,, | 7·0 | 3·2 | 3·0 |
| ,, —died ,, | 9·8 | 9·5 | 8·3 |
| Infirm cases percentage of whole | 13·3 | 9·4 | 5·6 |
| Operations—major | 332 | 420 | 576 |
| ,, —minor | 831 | 1,097 | 1,342 |
| Total | 1,163 | 1,517 | 1,918 |
| Anæsthetics—general | 749 | 1,048 | 1,159 |
| Dental patients | 118 | 161 | 247 |
| Dental treatments | 203 | 272 | 582 |
| Radiological investigations | 606 | 911 | 1,347 |

| | | 1928. | 1929. | 1930. |
|---|---|---|---|---|
| Massage treatments .. .. .. .. .. .. | | 3,410 | 4,781 | 4,989 |
| Radiant heat treatments .. .. .. .. .. | | 175 | 96 | 780 |
| Ante-natal clinic, women examined .. .. .. .. | | 164 | 274 | 463 |
| ,, ,, attendances .. .. .. .. | | 472 | 1,038 | 1,671 |
| Confinements .. .. .. .. .. .. .. | | 138 | 287 | 420 |
| Maternal morbidity .. .. .. .. | per cent. | 3·62 | 8·71 | 3·32 |
| Mortality per 100 women bearing live children | ,, | 0·80 | 0·76 | 1·29 |
| Infant mortality (maternity department) .. | ,, | 12·1 | 10·3 | 8·0 |
| Pathological investigations .. .. .. | ,, | 358 | 1,043 | 1,526 |

# INDEX.